Kara Kara National Park

Management Plan  October 2013
This Management Plan for Kara Kara National Park is approved for implementation. Its purpose is to direct all aspects of management of the park until the plan is reviewed.

A Draft Management Plan for the park was released for public comment from April to June 2009. Twenty-six submissions were received. All submissions have been considered in preparing this approved Management Plan.

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Acknowledgements

Acknowledgement of Country: In their rich culture, Indigenous Australians are intrinsically connected to the continent — including the area now known as Victoria. Parks Victoria recognises that the park is part of Country of the Traditional Owners.

Parks Victoria is grateful to all those organisations and individuals who have contributed to this management plan in particular Anne Hughes of the St Arnaud Field Naturalists Club for the vision.

Note

Technical terms used in this plan are explained in the Glossary at the end of the plan.

Disclaimers

This plan is prepared without prejudice to any negotiated or litigated outcome of any native title determination applications covering land or waters within the plan’s area. It is acknowledged that any future outcomes of native title determination applications may necessitate amendment of this plan; and the implementation of this plan may require further notifications under the procedures in Division 3 of Part 2 of the Native Title Act 1993 (Cwlth).

The plan is also prepared without prejudice to any future negotiated outcomes between the Government/s and Victorian Indigenous communities. It is acknowledged that such negotiated outcomes may necessitate amendment of this plan.

Every effort has been made to ensure that the information in this plan is accurate. Parks Victoria does not guarantee that the publication is without flaw of any kind and therefore disclaims all liability for any error, loss or other consequence that may arise from you relying on any information in the publication.

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Kara Kara National Park protects one of the most intact remnants of Victoria’s Box-Ironbark forests. Parts of the park are relatively unmodified in comparison to other areas of forest in the central goldfields and are a fine example of the type of vegetation that once covered almost 13% of the State.

The park is of importance to the Dja Dja Wurrung people. The connection that the Traditional Owners have with the park is acknowledged in adopting the Dja Dja Wurrung words, Kara Kara, as the park name.

The people of St Arnaud, Avoca and the surrounding districts have on offer a variety of ways to interact with nature in the park and a range of recreational activities including bushwalking, picnicking, camping, prospecting and cycling. The nearby Sunraysia Highway also provides visitors to the region the opportunity to access the park and its attractions.

I thank those individuals and organisations who made submissions on the draft, and encourage everyone to continue to enjoy and appreciate the park and become involved in its management.

HON RYAN SMITH MP
Minister for Environment and Climate Change
This management plan, prepared under Section 17 of the *National Parks Act 1975* (Vic.) provides the basis and directions for the future management of Kara Kara National Park.

This approved plan details the values and attractions in Kara Kara National Park and is a strategic guide for the protection and management of the park into the future. It was completed following careful consideration of the 26 submissions received on the draft plan.

The park name was changed to Kara Kara National Park from St Arnaud Range National Park in 2012 as a result of public submissions on the draft plan and further consultation endorsed by the Registrar of Geographic Names.

Parks Victoria recognises the important contributions that members of the community who know and value the area can make to its management. Through this plan, Parks Victoria seeks to strengthen its relationships with community groups with particular interests in the park, and encourage them to participate in its management.

We thank those individuals and organisations who made submissions on the draft plan, and encourage everyone to continue to enjoy and appreciate the park and become further involved with the park by supporting its management with their knowledge, skills and enthusiasm.

Adam Fennessey  
Secretary  
Department of Environment and Primary Industries

Bill Jackson  
Chief Executive  
Parks Victoria
INTRODUCTION TO BOX–IRONBARK PARKS

The Box–Ironbark forests and woodlands lie inland of the Great Divide in northern Victoria. Extending in a broad band from Wodonga through Chiltern, Beechworth and Benalla, they reappear near Numurkah and continue through Heathcote, Bendigo, Maryborough and St Arnaud to Ararat and Stawell. At the time of European settlement they covered almost three million ha, or 13% of Victoria.

Box–Ironbark forests and woodlands are unique to Australia, valued by local communities and celebrated in literature and art. The landscapes of the region have also inspired poets, writers and artists, both past and contemporary, including Banjo Paterson and Steele Rudd. With the creation of a highly protected system of parks and reserves in 2002, the future of these forests and woodlands is assured.

This plan explains the values and attractions of Kara Kara National Park, and sets out how they will be conserved and managed. The park protects one of the largest intact areas of Box–Ironbark vegetation in Victoria. The long north-south St Arnaud Range has the greatest abundance of large old trees in the Box–Ironbark region providing the best example of what these forests may have been like prior to European settlement. The park offers a range of recreation opportunities for visitors including picnicking, camping and fishing as well as extended bushwalking.

Box–Ironbark areas are part of Country of Traditional Owners. There are many areas rich in archaeological, cultural and spiritual significance throughout the region. Many places have archaeological significance. Increasingly, Indigenous communities are involved in protecting and sharing the region’s Indigenous heritage.

Box–Ironbark forests and woodlands contain some of Victoria’s most significant historic gold mining landscapes and features on public land, including areas of national cultural heritage significance. This has been recognised in the establishment of Castlemaine Diggings National Heritage Park, a first for Australia. These landscapes and sites are associated with many former gold towns and settlements, and combine with them to form a region of strong historic character and interest. The historic gold mining landscapes are significant components of tourism in the region today.

The Box–Ironbark forests have been associated with agriculture, gold mining and forestry since the 1830s. The major reefs and underground ore bodies helped establish and maintain towns, and together with forest products, contributed to the State’s economic development.

Different people value the forests in different ways, but local communities have strong feelings of pride in and ownership of their Box–Ironbark landscapes. The creation of the Box–Ironbark parks presents further opportunities to celebrate, protect and enhance these special landscapes.

European settlement has had a substantial impact on much of the Box-Ironbark areas through grazing, agriculture and gold mining as the area was significant in Victoria’s gold mining history. More than 80% of the area has been cleared, and nearly all of the remainder (496 000 ha, of which 372 000 ha is on public land) is affected by grazing, timber cutting and other pressures from settlement. Past land uses have also contributed to region-wide problems of pest plants and animals, salinity and soil erosion.

Interestingly, the gold mining, which had a significant initial impact on these environments, also contributed to their protection. To ensure supplies of timber for mining needs, the government established forest reserves. These became the setting for settlements and for recreation by generations growing up in the area. Some are the basis of today’s parks and reserves.

Although dominated by box and ironbark eucalypts, the Box–Ironbark forests are not uniform. Six broad vegetation and landscape types and no fewer than 73 Ecological Vegetation Classes (EVCs) are recognised. Before European settlement the most extensive EVCs were Plains Grassy Woodland, Grassy Woodland and Box–Ironbark Forest; all three are now endangered or depleted.
Fragmentation and loss of habitat in the Box–Ironbark region is the main reason that almost 300 of its 1500 flowering plant species and 53 of its 250 vertebrate animal species are now threatened. Many species, particularly birds, are in an ongoing state of decline. A key aim of Box–Ironbark conservation and management is therefore the recovery of species, as well as the protection of species not threatened.

One of the greatest losses has been large old box and ironbark trees, which produce reliable and abundant nectar, supply foraging sites such as peeling bark and fallen timber for ground-dwelling animals, and have many hollows vital for native mammals and birds. Instead of a landscape of large old and widely spaced trees, much is dominated by multi-stemmed coppice regrowth.

In October 2002, after many years of study and debate, the Victorian government proclaimed a number of parks designed to protect and enhance the natural and cultural values of some of the remaining original Box–Ironbark forests. The parks were also to be available for a range of appropriate recreational activities and for community enjoyment and appreciation. They comprise five national parks, five State parks, seven regional parks, two historic parks and reserves and one national heritage park. There are also some 300 conservation reserves to help link these park areas, bringing some connectivity to an otherwise fragmented landscape.

Some of the parks, like Chiltern-Mt Pilot and Greater Bendigo National Parks, are extensions of existing parks; others such as Heathcote-Graytown National Park and Broken-Boosey State Park are completely new. But together they are a significant step towards halting the decline of threatened species in the Box–Ironbark forests and woodlands, increasing community recognition of the values of the forests and woodlands and improving opportunities to develop tourism and related industries.

The parks should not be seen as separately managed ‘islands’ but as reservoirs of biodiversity within a broader landscape. Protecting and enhancing natural values on other public and private land in the region is vital, improving and connecting habitat for native species. The parks and the people who manage them are an integral part of local communities, and these communities in turn will play a key role in their protection, promotion and management.

The long-term protection of the region’s cultural heritage and biodiversity, including that of its parks and reserves, relies on the community fostering a strong sense of custodianship of the parks and reserves and the landscapes of which they are an important part.

The plan seeks to rebuild the natural linkages in a fragmented landscape through the goodwill of the community together with the help of land managers and the government, while respecting cultural, economic and community associations with the land.

Because of their rich Indigenous and European heritage, in addition to their natural attractions, the Box–Ironbark parks are likely to have a growing significance for Victorians and visitors from interstate and overseas in the years ahead. The parks may not be major tourism attractions in their own right, but they are integral to the character of growing regional cities such as Bendigo. They have great potential as a complementary product for people who come to the region for other reasons, such as seeking social, recreational, sporting or heritage experiences. There is also potential for Indigenous communities and products to support the development and delivery of Box–Ironbark experiences for visitors.
Kara Kara National Park (13 990 ha) protects the largest relatively intact area of Box–Ironbark forest and woodland in Victoria. It is an important example of the vegetation that existed across 13% of Victoria prior to European settlement and modification. Located between the towns of Avoca and St Arnaud, the park is adjacent to a number of small communities, including Barkly, Redbank, Rostron and Stuart Mill.

The park is characterised by deeply dissected ranges with high scenic values, forested hills and creek landscapes, and dry forests and woodlands. The park provides habitat for a range of threatened species, notably the Swift Parrot, Barking Owl, Bibron’s Toadlet, Clover Glycine and Lowly Greenhood.

Indigenous tradition indicates that the park lies within the Country of the Dja Dja Wurrung people. The park contains Aboriginal places and objects that are significant to the Traditional Owners.

Recreational activities in the park include picnicking, bushwalking, bird watching, bike riding, camping, orienteering and prospecting.

This approved plan establishes a framework for the sustainable management of the park, and aims to enhance visitor enjoyment and appreciation while protecting and conserving the park values.

Key elements of the plan include:

• Promotion of opportunities for community and stakeholders to work together and with Parks Victoria and the Traditional Owners to achieve common goals for the park.

• Maintenance of the near-natural growth stage distribution, structure and floristic diversity of the vegetation communities throughout most of the park.

• Protection of threatened flora and fauna and associated habitats.

• Reduction of pest plants and animals, and of the impacts of overgrazing by native species such as kangaroos, through an integrated response at a landscape scale.

• Improvement of links with nearby habitats and adaptive management of threats to help increase the parks’ resilience to impacts of future climate change.

• Management of sustainable recreational activities in appropriate locations, and in ways to minimise impacts on park values and conflicts between visitors.

• Protection of Aboriginal places and objects.

• Protection and conservation of post-settlement significant cultural places and objects as appropriate.

• Strong collaborative partnerships with the Traditional Owners and recognition of Indigenous cultural heritage associated with the park.
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INTRODUCTION

1.1 Location and planning area

Kara Kara National Park (13,990 ha) is approximately 190 km north-west of Melbourne, west of the Sunraysia Highway (figure 1). The park is mid-way between the regional cities of Horsham and Bendigo, between the towns of St Arnaud and Avoca, and close to the townships of Stuart Mill, Redbank and Moonambel.

This management plan covers the Kara Kara National Park, including the Mt Separation Reference Area.

1.2 Creation of the park

Kara Kara National Park was included in Schedule Two of the National Parks Act 1975 (Vic.) as a result of the National Parks (Box-Ironbark and Other Parks) Act 2002 (Vic.) and was proclaimed on 30 October 2002.

A small addition (91 ha) was made in the north-west of the park in August 2010 as a result of the transfer of former private land from Bendigo Mining Limited as part of native vegetation clearance offsets under the Victorian Native Vegetation Framework (NRE 2002c).

The park resulted from Recommendation A2 of the Environment Conservation Council’s (ECC) Box-Ironbark Forests and Woodlands Investigation Final Report (ECC 2001). In accordance with the ECC recommendations accepted by government, the park incorporates:

- the former Kara Kara State Park (3948 ha)
- the Mt Separation Reference Area (188 ha)
- part of the former St Arnaud Range State Forest (8540 ha)
- areas of uncommitted Crown land (1224 ha).

The former Kara Kara State Park was originally proclaimed under the National Parks Act in 1986 (Parks Victoria 1997).

1.3 Plan development

This management plan for Kara Kara National Park was prepared by Parks Victoria on the basis of existing information, reports and research findings that relate to the park. The plan is informed and supported by a range of best practice management systems. Significant input of information and advice was sought and received from communities, groups, individuals and agencies with particular interests in the park. Community days were held at Stuart Mill, Paradise and Moonambel. Parks Victoria staff attended the St Arnaud Festival to seek community views on park management issues, favoured activities, and individual’s visions and aspirations for the future of the park. Representatives of user groups participated in an environmental risk assessment workshop, and other interest groups were consulted on specific aspects of the plan. A community forum was held at Stuart Mill to discuss issues raised through consultation.

This approved plan replaces the management plan for the sections of the park formerly known as Kara Kara State Park, which was released in July 1997 (Parks Victoria 1997).

A review of the Kara Kara State Park plan informed the development of this management plan for the Kara Kara National Park. Significant progress made in implementing the 1997 plan, including:

- protection of natural and cultural values through improved definition and development of the Teddington Camping Area
- discovery of and research on the nationally endangered Lowly Greenhood orchid in the park
- annual pest control programs for rabbits and foxes with park neighbours as part of the ‘Good Neighbour’ program
- promotion and interpretation of park values through:
  - ranger talks with schools and interest groups
  - improving the Park Note
  - upgrading the visitor information board at Teddington Camping Area and provision of information at
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Teddington Hut and 80 Acres Camping Area

- erecting and maintaining new signage throughout the park
- ranger presence at regional festivals and events
- strengthened relationships with regional tourism networks.

The plan is a strategic guide for future management of Kara Kara National Park. As a public document, the plan establishes how Parks Victoria will protect the park’s natural and cultural values, and the services and facilities that will be provided to help visitors to enjoy, appreciate and understand the park in ways that are consistent with this. The plan also describes methods to inform the community about the park, encourage interested groups to become involved in park management programs and encourage cooperative land management and participation in community-based programs involving Parks Victoria and managers of areas adjacent to the park.

As a working document for the park, the plan informs Parks Victoria’s development of Corporate Plans, serves as a framework for subsequent detailed planning and governs management activities.

The Draft Management Plan was published for public comment in April 2009.

A total of 26 submissions were received on the draft plan (appendix 2). All submissions on the draft plan were carefully considered and taken into account in preparation of this final management plan. Where necessary, further consultation with the community and stakeholders was undertaken.

As a result of public submissions on the draft plan and further consultation in accordance with the Geographic Places Names Act 1998 (Vic.) and Guidelines for Geographic Names (2010), the park was renamed Kara Kara National Park via amendment of the National Parks Act in 2012 (section 5.2).

Key changes made to the draft plan in preparing this management plan included:

- changing the name of the park to Kara Kara National Park from St Arnaud Range National Park
- allowing solid fuel fires all year round as opposed to the planned fire danger period restriction
- altering access for prospectors to include an area along Boundary Road, because of the need to protect an area in the north of the park important for the nationally endangered Lowly Greenhood.

This approved Management Plan will direct future management of the Kara Kara National Park until reviewed (section 9.3).
2.1 Regional context

Kara Kara National Park forms part of the Goldfields bioregion. The park protects 3.8% of the bioregion’s native vegetation (NRE 2002b).

The St Arnaud Range is a prominent north–south ridge that forms the boundary between two river basins; the Wimmera–Avon basin to the west and the Avoca basin to the east. The headwaters of these catchments are within the park, and therefore activities in the park have potential to impact on the health of the catchments and rivers. The park and surrounding areas are mostly in the North Central Catchment Management Authority’s area of responsibility. Part of the south-west of the park is within the Wimmera Catchment Management Area.

The area abutting the park is largely cleared land used for dryland grazing and cropping. Almost 20% of the land adjacent to the park contains native vegetation that significantly complements park values. This vegetation is largely protected in Nature Conservation Reserves (NCRs) that connect to State forest and regional park to the north of the park. Some important native vegetation is retained on freehold land. The forested area contiguous with the park totals approximately 9880 ha (figure 3), including:

- Redbank NCR (1169 ha)
- Stoney Creek NCR (607 ha)
- Stuart Mill NCR (2539 ha)
- St Arnaud Range State Forest (4647 ha)
- St Arnaud Regional Park (920 ha).

Other parks, reserves and State forest areas within the region that also complement the park values include:

- Kooyoora State Park
- Big Tottington NCR, Mt Bolangum NCR, Morrl Morrl NCR, Landsborough Hill NCR, Landsborough NCR, Dalyenong NCR and Tunstalls NCR
- Pyrenees State Forest
- Percydale Historic Area.

A range of recreational opportunities and visitor experiences that complement those offered by the park are available at these other park, reserve and forest areas. Kooyoora State Park offers rock climbing and camping opportunities for large groups, with a greater range of facilities. Bushwalking and nature appreciation are favoured activities in the parks and nature conservation reserves. The St Arnaud and Pyrenees State Forests offer prospecting, four wheel driving and car touring, and Percydale Historic Area offers heritage appreciation experiences.

Indigenous tradition indicates that the park is part of Country of the Dja Dja Wurrung. Aboriginal occupation of the area including the park has occurred over thousands of years, and the Dja Dja Wurrung maintain an association with the area.

Many within the broader community are passionate about the history of the region and some have strong historical associations with parts of the park, in particular the development and use of the Upper Teddington Reservoir and associated water harvesting infrastructure.

Most of the park lies within the Northern Grampians Shire. The southern part of the park is within the Pyrenees Shire. Regional population centres in the Northern Grampians Shire are Stawell, St Arnaud, Halls Gap, Great Western, Glenorchy, Marnoo and Navarre. Regional population centres in the Pyrenees Shire Council are Beaufort, Avoca and Lexton.

The park is also within the boundaries of Tourism Victoria’s Grampians and Goldfields product regions. The park and surrounding regional towns offer features of both tourism regions. Nature, wildlife and outdoor activities are highlights of the Grampians tourism product region. The park offers these features in abundance, without the crowds sometimes encountered at some sites in Grampians National Park. All of the surrounding towns and parts of the park have a rich gold mining history, the key feature of the Goldfields tourism product region. The Pyrenees wine region to the south of the park, a feature of the Grampians tourism product region, is complemented by a number of small wineries to the north of the park.
2.2 Park significance and values

Kara Kara National Park makes a valuable contribution to Victoria’s parks and reserves system, which aims to protect viable, comprehensive, adequate representative samples of the State’s natural environments. The park also provides opportunities for visitors to enjoy and appreciate the natural environment and natural and cultural features.

The park is assigned the World Conservation Union (IUCN) Category II of the United Nation’s List of National Parks and Protected Areas. Category II areas are managed mainly for ecosystem conservation and recreation. On a statewide basis, the park is rated as high for the protection of natural values.

Significant features of the park include:

Natural
- The most intact Victorian example of the original Box–Ironbark forest structure, with a greater number of widely spaced large old trees and more fallen timber than any other Box–Ironbark area.
- The greatest abundance of large old tree sites of any Box–Ironbark forest area in Victoria.
- One of the largest intact areas of Box–Ironbark vegetation and landscapes in Victoria, well connected to other areas of reserved native vegetation and only slightly fragmented.
- Vegetation with a high degree of ecological integrity that is habitat for a diverse range of flora and fauna.
- A contiguous area of important habitat that is large enough to sustain fauna that require sizeable territories, including Powerful Owl, Brush-tailed Phascogale and Barking Owl.
- Several key sites that are important for the recovery of the nationally endangered Swift Parrot and the protection of the nationally endangered Lowly Greenhood.

Cultural
- Aboriginal places and objects, including rock wells, artefact scatters and scarred trees.
- Substantial remains from a water harvesting and supply system developed from the 1890s.
- Historic places associated with early gold mining and forestry work, including charcoal pits, forest camp areas, puddlers, batteries, mines, water races and diggings.
- Carapooee West Boys Camp, one of the best preserved sites in Victoria of places and landscapes associated with the evolution of government strategies to increase employment during the Great Depression.
- The strong community attachment through both historic and contemporary use of the park by many in the community.

Recreation and tourism
- The best opportunity in the Box–Ironbark area for park visitors to experience a sense of what Box–Ironbark forest landscapes were like prior to the gold rushes and settlement.
- Unique and picturesque niches that hold special significance to people that have explored and discovered parts of the park.
- Rocky ridges providing vantage points for landscape viewing.
- Opportunities to experience solitude in the vast expanses of the park.
- Opportunities for individual and group recreation activities, including bushwalking, nature appreciation, camping, four-wheel driving, horse riding, prospecting, orienteering and rogaining.

2.3 Evidence of past use

In comparison to other Victorian Box-Ironbark parks, the park’s Box–Ironbark forests are the least modified by human activities. The park has the highest concentration of large old tree sites in the former Environment Conservation Council’s Box–Ironbark forests and woodlands study area (ECC 2001). The park has, however, been affected in a number of ways by human activities, although the impacts on the park’s natural features are generally limited.
The presence of a number of places and objects, including rock wells, artefact scatters and scarred trees in the park (Edmonds 2007) demonstrate evidence of Aboriginal occupation in the area.

Honey production using European Honey Bees has occurred in areas of the park since early settlement, and is recognised as a permitted use subject to regulation (section 7.2).

Stock grazing occurred throughout most of the park, from about the 1840s until the 1990s. Old fences within the park are evidence of this activity, particularly the historic ‘chock and log’ style fences that can be seen within the park along Centre Road and the chock and log sheep yards, which were constructed in the early 1900s. Other evidence of grazing, particularly in the lower, more fertile areas that were more intensively grazed, is the higher incidence of weeds in these areas. Grazing ceased in the former Kara Kara State Park in 1995 and also in the former State forest around this time (D. Lanyon pers. comm.).

There are a number of historic places associated with mining in the park, including Cement Lead Diggings, Rostrons Puddlers, Victoria Gully Puddlers and associated sluicing dam and shallow alluvial diggings, New Years Flat/Crawlers Gully and Grumblers Gully (section 5.2). Although mining activities in the region took place outside the park, particularly around Stuart Mill and Redbank from 1861, timber cutting to support these activities had an impact on the park.

Evidence of other historic occupation in the park and the use of forest timbers can also be found at Carapooee West Boys Camp, Carapooee West Sawmill, woodcutters’ rock carvings, several temporary prisoner of war camps from World War 2, charcoal pits and numerous tree stumps throughout the lower parts of the park. The lower slopes of the park, particularly in areas of Box–Ironbark forest (section 4.4), have been harvested more intensively than other areas because of the ease of access and more favoured commercial timber species in these areas. Yellow Gum, Grey Box, Red Ironbark, Southern Blue Gum and Yellow Box were all favoured timber species and harvesting may have altered the original overstorey species composition in some areas of the park (Parks Victoria 1997). In addition, a stand of mature blue gums remains in a plantation of approximately 8 ha, which was planted in a section of the Strathfillan valley in the 1920s (Crafter 1994).

The Upper Teddington Reservoir and a series of works including catch drains, rock bars, weirs and diversion drains within the upper Strathfillan Creek catchment, constructed from 1898, are evidence of this area’s role in supplying water to the Stuart Mill and St Arnaud communities for 50 years (sections 4.3, 5.2 and 7.1).

2.4 The park visitor

Visitors to the park are predominantly from the surrounding region, including the towns of Avoca, Maryborough and St Arnaud. The park also attracts visitors from further afield, including people travelling on the Sunraysia Highway through Redbank and Stuart Mill, which are gateways to the park.

Visitors to the park use a variety of accommodation, such as camping in the park or nearby State forest, staying with friends or relatives, and commercial accommodation such as bed and breakfasts, motels and caravan parks in St Arnaud and Avoca. Main access routes to the park from both the north and south are via the Sunraysia Highway (section 6.2 and figure 3).

When the Upper Teddington reservoir held water, the park attracted 3500 day visits and 3500 camper nights per year to the Teddington Camping Area (Parks Victoria 1997). Since 2002 when the remaining water was released to the lower Teddington Reservoir for use by the Stuart Mill township, water-based recreation has not been available, and the number of visitors, including campers, has declined significantly. Day visitation and use, particularly for bushwalking, nature study, prospecting and four wheel driving, are likely to continue at similar levels.

In terms of statewide priorities, Parks Victoria has rated the park as having regional and localised value for the provision of visitor services. The natural values of the park will be promoted as a priority, while resources for visitors will focus on Teddington Camping Area and Teddington Hut as the main visitor sites in the park.
2.5 Legislation and ECC recommendations

Legislation

Kara Kara National Park is reserved and managed under the National Parks Act. The Act requires the Secretary to DEPI to preserve and protect the natural condition of the park, and its natural, cultural and other features and, subject to this, to provide for the use of the park by the public for enjoyment, recreation and education. Appropriate research activities are also provided for under the Act.

The objects and provisions of the National Parks Act set the framework for the management of Kara Kara National Park (appendix 1). Specific legislation and ECC recommendations accepted by government also govern specific aspects of management of the park as described below and in subsequent sections of the plan.

The Aboriginal Heritage Act 2006 (Vic.) applies to the park and protects all Aboriginal places, objects and Aboriginal human remains (section 5.1).

The Native Title Act 1993 (Cwlth) applies to the management of the park.

The park includes parts of three special water supply catchment areas (section 4.3 and figure 2) proclaimed under Schedule 5 of the Catchment and Land Protection Act 1994 (Vic.).

An application for a native title determination, which covers Kara Kara National Park among other areas, was lodged with the Native Title Tribunal on 15 August 2000. Implementation of this management plan will take into account the outcomes of this and any subsequent native title applications, and any native title found to exist under the Native Title Act.

The Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) applies to the whole of the park with respect to actions that have, will have, or are likely to have, a significant impact on matters of national environmental or cultural significance, including listed threatened species and communities and listed migratory species in the park.

The Flora and Fauna Guarantee Act 1988 (Vic.) (FFG) establishes a legal and administrative structure to conserve Victoria’s flora and fauna, manage potentially threatening processes such as loss of hollow-bearing trees, and provides programs to encourage conservation through community endeavours.

The Parks Victoria Act 1998 (Vic.) enables management services for Kara Kara National Park to be provided on behalf of the Secretary to DEPI by Parks Victoria. The National Parks (Park) Regulations 2003 apply to the park.

The Heritage Act 1995 (Vic.) provides for the protection and conservation of places and objects of cultural heritage significance.

Other legislation, and policies and guidelines (section 2.6) at both the Commonwealth and State levels, apply to management of the park and specific activities and uses.

ECC Recommendations

The former ECC, in its Box–Ironbark Forests and Woodlands Investigation Final Report (ECC 2001), made a number of recommendations that relate to the park, including the following recommendations:

A2(a) Use of Kara Kara National Park in accordance with the general recommendations for national parks.

A2(b) Protection of the water and catchments of the Redbank and Teddington Reservoirs be maintained.

R8 Land managers continue with and further develop adaptive management research and monitoring programs, develop targeted new programs and apply the results where appropriate.

R15 Planning and management relating to traditional interests and uses be based on recognition and respect for the traditional and contemporary relationship of Aboriginal peoples with the land.

R42 Box–Ironbark public lands be available for a range of recreation activities for community enjoyment and appreciation, and appropriate to the land use category.

All of these recommendations were accepted by the State Government in February 2002 (Government of Victoria 2002).

2.6 Policies and guidelines

The park is managed in accordance with Parks Victoria’s operational policies and, where
appropriate, with other policies and guidelines including the following:

- Indigenous Partnership Strategy and Action Plan (Parks Victoria 2005a)
- Recreation Framework for Box–Ironbark Public Land (DSE 2003a)
- Heritage Management Strategy (Parks Victoria 2003)
- Guidelines for working with Aboriginal communities and protection of cultural sites (Parks Victoria 2002)
- National Strategy for Ecologically Sustainable Development (COAG 1992)
- National Strategy for the Conservation of Australia’s Biological Diversity (ANZECC 2001)
- Victoria’s Biodiversity Strategy (NRE 1997)
- North West Region, Bendigo Fire District Fire Protection Plan (DSE 2003b)
- Code of Practice for Bushfire Management on Public Land (DSE 2012)


The park is also managed within the broader context of a number of other plans and strategies, including:

- Policy for Sustainable Recreation and Tourism on Victoria’s Public Land (NRE 2002a)
- Victoria’s Heritage – Strengthening Our Communities (Heritage Victoria 2006)
3 STRATEGIC DIRECTIONS

3.1 Vision
A journey back in time while we safeguard our forests’ journey into the future.

In one of the largest intact areas of Box-Ironbark vegetation in Victoria, visitors are able to see what the landscape looked like before 1780, a long and continuing Aboriginal history and the difficulties faced by European settlers when the inland slopes were opened up following Major Thomas Mitchell’s explorations in the mid 1830s.

The park contains the best vegetation of its type – large old trees widely spaced, diverse vegetation types, habitat for many flora and fauna species such as the enigmatic Powerful Owl, the secretive Barking Owl, the Brush-tailed Phascogale and plant species such as the Lowly Greenhood.

Visitors are able to see evidence of past human activity from both Aboriginal activities such as scarred trees, rock wells, and artefact scatters as well as post European settlement influences such as goldmining puddlers, whims and shafts, timber harvesting, Government employment projects such as the Boys’ and Aliens’ Camp, stock grazing with its ‘chock and log’ fences and early water collection projects such as the Teddington reservoir and associated structures.

Because of its ecological integrity the park provides an unparalleled opportunity to study the impacts of post-European activities as well as the impacts of climate change on our native flora and fauna and will provide invaluable research opportunities for managing our environment on a landscape scale. Proactive and scientifically based management of the park will ensure protection at the highest level of its natural values, threatened species and ecology for the benefit of all.

Within easy reach of Melbourne, the park provides a wonderful opportunity for recreation activities such as bushwalking, nature observation, camping, four-wheel driving and orienteering and rogaining.

The wilderness experience can be easily enjoyed by many who might otherwise be unable to reach more remote and inaccessible wilderness areas.

3.2 Management directions
Major management directions for the park are outlined below.

The Traditional Owners’ knowledge and interests in the area and aspirations for Country will be reflected in the park’s planning and management, in accordance with legislation and policies (Parks Victoria 2005a).

Natural values conservation
- The near-natural age class distribution, structure and floristic diversity that exist throughout most of the park will be maintained, and disturbed areas will be restored to a more natural condition over time.
- Populations of threatened flora and fauna species will be protected and where possible improved to self-sustaining levels.
- Fauna habitat will be protected, maintaining the quality and availability of fauna refuges, large old trees and woody debris on the ground.
- Resourcing an integrated response to extensive or emerging threats at a landscape scale will be a priority.
- The Mount Separation Reference Area will be maintained in a relatively undisturbed state by keeping human interference to a minimum.
- Research into the management requirements of significant flora and fauna communities and species, and into ecological changes caused by climate change, will be encouraged.
- The natural values of the park will be protected through the active management of fire in the landscape and the implementation of appropriate fire regimes.
- Community partnership projects that protect and restore native vegetation links beyond the park and reduce habitat fragmentation across the landscape will be encouraged.
• Research and monitoring of the role of fire in meeting the ecological requirements of floristic communities in the park will be incorporated into future management and activities as required.

• The impact of works and infrastructure on the park’s natural values will be minimised.

Cultural values conservation
• Aboriginal places and objects will be protected from interference or damaging activities.

• Indigenous cultural obligations relating to Country will be respected and the Traditional Owners’ knowledge will be promoted and interpreted in accordance with their views.

• Historic places will be conserved by protecting them from damaging or inappropriate activities.

• The impact of any works and infrastructure on the park’s cultural values will be avoided by careful planning and construction.

• Research into the Aboriginal and historic cultural heritage of the park will be encouraged and supported as appropriate, in consultation with the relevant Traditional Owners and other community groups interested in the history of the area.

The park visit
• Visitor and local community understanding and appreciation of the park’s natural and cultural values will be enhanced by a range of information services, and interpretation and education programs.

• Opportunities for visitors and local communities to readily access and enjoy solitude in natural forest and grassy woodland settings will be maintained.

• The park will be promoted as a regional destination and a unique Box–Ironbark experience.

• Visitor and local community enjoyment will be enhanced by appropriate management of recreation activities.

• A range of quality recreational experiences will be maintained at sustainable levels.

• Visitors will be encouraged to adopt minimal-impact techniques and to adhere to standards developed by the outdoor recreation industry that are appropriate to their activity.

• Visitor understanding of the role management activities play in management of the park will be interpreted to promote increased understanding.

Community awareness and involvement
• Strong collaborative partnerships will be developed with the Traditional Owners and the relevant Registered Aboriginal Party to facilitate the reflection of Indigenous knowledge, interests and aspirations in the park’s planning and management.

• The wider community will be encouraged to become more aware of the park and appreciative of its values and the rich and diverse knowledge and aspirations of the Traditional Owners and Indigenous communities.

• Local communities and visitors will be encouraged to develop a sense of custodianship for the park, join a Friends group and become involved in the park’s management.

• Strong cooperative relationships will be further developed and maintained with communities or groups that are interested in the park’s management to support and strengthen their involvement.

• Collaborative partnerships will be maintained with relevant agencies to progress areas of mutual interest which strengthen protection of the park.

• Ongoing opportunities will be given for communities, groups, individuals and other agencies to share their interests and raise concerns relating to the park and its management.
3.3 Zoning

Park management zoning:

- provides a geographic framework in which to manage a park
- reflects sensitivity, fragility and remoteness of natural values
- indicates which management directions have priority in different parts of the park
- indicates the types and levels of use appropriate throughout the park
- assists in minimising existing and potential conflicts between uses and activities, or between activities and the protection of the park’s values
- provides a basis for assessing the suitability of future activities and development proposals.

There are three management zones in the park: Conservation and Recreation Zone, Conservation Zone and Reference Area Zone. Five overlays apply to the park to highlight management requirements in addition to those of the underlying zones (table 1 and figure 2). Details of zone and overlay characteristics are provided in table 1, and recreation opportunities are summarised in table 2.
<table>
<thead>
<tr>
<th>ZONE/OVERLAY</th>
<th>AREA/LOCATION</th>
<th>VALUES</th>
<th>MANAGEMENT AIM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ZONE/S</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conservation and Recreation</td>
<td>7992 ha; 57% of the park</td>
<td>Important natural values and scope for recreation opportunities.</td>
<td>Protect natural environments and provide for sustainable, dispersed recreational activities and small-scale recreational facilities without significant impact on natural processes.</td>
</tr>
<tr>
<td>Conservation</td>
<td>5810 ha; 41.5% of the park</td>
<td>Broad areas containing sensitive natural environments or ecosystems.</td>
<td>Protect sensitive, fragile or remote natural environments and provide for minimal impact recreation and simple visitor facilities, subject to ensuring minimal interference with natural processes.</td>
</tr>
<tr>
<td>Reference Area</td>
<td>188 ha; 1.4% of the park</td>
<td>Relatively undisturbed representative land types and associated vegetation.</td>
<td>Protect viable samples of one or more land types that are relatively undisturbed for comparative study with similar land types elsewhere, by keeping all human interference to the minimum essential and ensuring as far as practicable that the only long-term change results from natural processes, in accordance with Ministerial directives and Parks Victoria’s operational policies.</td>
</tr>
<tr>
<td><strong>OVERLAY/S</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Use Designation – Prospecting</td>
<td>7140 ha; 51% of the park (figure 2)</td>
<td>Prospecting area.</td>
<td>Allow suitable prospecting under a Miner’s Right or Tourist Fossicking Authority in accordance with Section 32D of the National Parks Act, while protecting biodiversity, catchment, geological and cultural values.</td>
</tr>
<tr>
<td>Land Use Designation – Special Water Supply Catchment Area</td>
<td>1803 ha; 12.9% of the park (figure 2)</td>
<td>Large, undisturbed catchments.</td>
<td>Protect the quality of water by restricting the level and types of recreation activities in accordance with Schedule 5 of the Catchment and Land Protection Act.</td>
</tr>
<tr>
<td>Special Protection Area – Fauna refuge</td>
<td>623 ha; 4.5% of the park (figure 2)</td>
<td>Intact gully vegetation providing refuge for fauna in times of drought or fire, and important habitat for threatened species reproduction, particularly in spring.</td>
<td>Protect intact fauna vegetation as fauna habitat, particularly for refuge use in times of drought or fire. Protect these areas from bushfire and allow planned burning in these areas for ecological or management purposes, while protecting fauna refuge values. During spring, minimise disturbances to these areas by excluding events with large numbers of participants or spectators.</td>
</tr>
<tr>
<td>Special Protection Area – Large old trees</td>
<td>3526 ha; 25.2% of the park (figure 2)</td>
<td>Areas containing significant numbers of large old trees.</td>
<td>Protect individuals and groups of large old trees from damage by bushfire or management activities. Allow planned burning in these areas for ecological or management purposes, while protecting large old trees.</td>
</tr>
<tr>
<td>Special Management Area – West of England Firetower</td>
<td>&lt;1 ha</td>
<td>Infrastructure including firetower and telecommunications facilities.</td>
<td>Actively manage the area to facilitate the effective use of the firetower for fire detection while minimising the impact of operation and maintenance on park values.</td>
</tr>
<tr>
<td>Activity</td>
<td>Management Zones</td>
<td>Overlays</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zone 1</td>
<td>Zone 2</td>
<td>Zone 3</td>
</tr>
<tr>
<td>Percentage of park</td>
<td>57%</td>
<td>41.5%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Bicycle riding (section 6.6)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Bird watching</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Bushwalking</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Camping – car-based (facilities) (section 6.5)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Camping – designated (limited facilities) (section 6.5)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Camping – dispersed (no facilities) (section 6.5)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Campfires (section 6.5)*</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Car rallies (section 6.2)</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Dog walking on lead</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Education/guided activities</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Fires in gas or liquid-fuel fireplaces (section 6.3 &amp; 6.5)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Feeding wildlife</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Filming and photography</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Fishing</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Four wheel drive touring (section 6.2)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Hang gliding, paragliding</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Horse riding (section 6.7)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Hunting</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Licensed tours</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Motorbike riding/trail bike riding (section 6.2)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Nature photography/painting</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Orienteering/rogaining (section 6.8)</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Picnicking</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Prospecting (section 6.9)</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Rafting/canoeing/kayaking</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Rockclimbing/abseiling</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Scenic drives</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Sightseeing</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

KEY: * in provided fireplaces only, BYO firewood.
Y = Yes—subject to overlay prescriptions and conditions prescribed by legislation, licensed tour permits or elsewhere in the plan as indicated.
N = Not permitted.

Zone 1 Conservation and Recreation Zone
Zone 2 Conservation Zone
Zone 3 Reference Area Zone
LUD 1 Land Use Designation – Prospecting
LUD 2 Land Use Designation – Special Water Supply Catchment
SPA 1 Special Protection Area – Fauna refuge
SPA 1 Special Protection Area – Large old trees
SMA Special Management Area – West of England Firetower
4 STRATEGIES FOR NATURAL VALUES CONSERVATION

4.1 Landscape

The landscapes of the park are unique because they are the best Victorian examples of the original Box–Ironbark forest structures, with forests of widely spaced large trees and abundant fallen timber on the forest floor (ECC 2001).

The landscape is an intrinsic element of Country for Traditional Owners in accordance with tradition. Features of high scenic quality in the park include rocky ranges and outcrops, the Upper Teddington Reservoir and Strathfillan Creek. Cultural landscapes in the park include mining-related landscapes in the eastern parts of the park, timber harvesting landscapes in the Box–Ironbark forests of northern parts of the park and modified landscapes around the Teddington Reservoir and 80 Acres Camping Area (section 5.2).

Two prominent north-south ranges — West of England Range and Mount Separation Range — are notable features of the park. The ranges meet in a V-shaped formation near the southern end of the park. The West of England Range forms the western boundary of the park, and Centre Road follows the ridgeline of the range for about 13 km. Mount Separation Range is in the east of the park, extending for about 4 km, and Mt Separation Road follows its ridgeline. The basin between these two ranges forms the headwaters of the Strathfillan Creek and the catchment area for the Teddington Reservoirs (section 4.3).

The steep, forested hills of the park between St Arnaud and Redbank rise above the surrounding plains to 600 metres above sea level and can be viewed at numerous vantage points along Centre Road and from the area around the West of England Firetower. The areas to the north of the park nearer to St Arnaud, to the east around Stuart Mill and Hines, and to the south near Redbank are characterised by wide belts of lower hill country.

There are opportunities to enhance the park’s natural landscape by increasing the connectivity of the park to remnant vegetation across the landscape and reducing fragmentation (sections 4.5, 8.2 and 8.3).

There are some cleared sections about 40 metres wide along Centre Road, and along other sections of this road there are stacks of woody debris taken from the forest floor as a result of former forestry and fire management practices.

Threats to the landscape character within the park include inappropriately designed visitor facilities and other infrastructure, inappropriate fire regimes, and developments outside the park that may detract from the landscape character of the park if they are inappropriately designed or located or use inappropriate materials.

Aim

- Protect the natural landscape, particularly places of high scenic quality, cultural or other significance.

Management strategies

- Maintain important natural and cultural landscapes in the park through appropriate park management, including minimising the impact of signs, visitor facilities and public infrastructure.
- Consider and respect the significance of the landscape to the Traditional Owners in planning and implementing management activities (sections 5.1, 6.1 and 8.2).
- Liaise with DEPI and the Northern Grampians and Pyrenees Shires to minimise impacts on views in the park (sections 7.4 and 8.3).
- Maintain viewing opportunities for park visitors at the West of England site.
- Allow previously cleared areas alongside Centre Road to revegetate over time.
- Redistribute the stacks of woody debris along Centre Road back to the forest floor with assistance from volunteers and interested groups.

4.2 Geological features

The bedrock of the park and surrounding areas is mainly marine sedimentary rocks that were deposited in a deep ocean during the late Cambrian period (490 million years ago). The sediments were composed of quartz, clay and
other minerals derived by erosion of a quartz-rich metamorphic and granitic terrain in ancient highlands to the west. During the early Silurian period the sedimentary layers were compressed from the west and east and uplifted above sea-level by the action of plate tectonics. This event folded, faulted and metamorphosed the sediments, which finally formed hard, upright layers of sandstone, mudstone and siltstone. A long period of erosion has followed. The resultant landforms of the park are still affected by the dominant north–south orientation of the folded layers and major faults because streams have preferentially flowed along weaker lines. Exposures of the folded sedimentary rocks are found within the park (ECC 1997).

Although there are no geologically significant features recorded within the park, geological features are intrinsic elements of Country for Traditional Owners and significant for Indigenous communities.

The soils on the crests and upper slopes of steep ridges are mostly shallow and stony. The soils on the lower slopes are a little deeper because of deep weathering and the accumulation of colluvium. Drainage lines and streams have deeper soils derived from alluvial and colluvial parent materials (ECC 1997). The lower slopes and drainage lines include areas of duplex soils with poor drainage and high dispersibility. These areas are prone to erosion if the ground cover is disturbed. Some areas around the Teddington Camping Area have minor erosion where vegetation has been disturbed.

Aim

- Minimise the impacts of visitors and management activities on erodible soils and rock formations.

Management strategies

- **Rehabilitate eroded areas, particularly around visitor sites (table 4).**

- **Ensure that fire management activities do not adversely affect erodible soils on the lower slopes and drainage lines of the park (section 4.6).**

- **Encourage research to identify landforms of special significance to the Traditional Owners, and protect them from damaging or inappropriate activities (sections 5.1 and 8.2).**

- **Consider and respect the significance of landforms to Indigenous communities in planning and implementing management activities (sections 5.1 and 6.1).**

4.3 Rivers and catchments

The north–south ranges of the park divide it into two catchments. The eastern part of the park, which includes the headwaters of the Redbank Creek, Hines Creek, Cherry Tree Creek, Strathfillan Creek, Carapooee Creek and Middle Creek, is within the upper Avoca catchment. The western part of the park is within the upper Avon River basin, which is part of the Avon–Richardson catchment. These catchments are part of the North Central Catchment Management Authority’s (NCCMA) region of responsibility. An area of the park near the Mt Separation Reference Area is within the catchment for which the Wimmera Catchment Management Authority (WCMA) is responsible. Catchment Management Authorities have the role of caretaker of river health and manager of environmental water (NCCMA 2003; WCMA 2003).

Some of the headwaters of Sandy Creek rise in the park. Sandy Creek is a major tributary of the Avon River (NCCMA 2005). The Avon joins the Richardson River, which flows northwards to the nationally significant Lake Buloke (NCCMA 2005). There are a number of springs and soaks in the steep gullies of the southern part of the park and former Kara Kara State Park area that are important refuges for fauna during dry periods (section 4.5).

The activity outside the park that has had the most impact on catchments is vegetation clearance for farming. The predominant land use in both catchments is broad acre farming for wool and crop production. Activities within the park that have had an impact on catchments are water harvesting for stock and domestic water supply, timber harvesting, mining and grazing (section 2.3).

There are three special water supply catchment areas (SWSCA) in the park: Redbank Creek (Redbank) SWSCA, Teddington Reservoir SWSCA and Wimmera Systems SWSCA. Water from these catchments supplement rainwater and bore water supplies, providing
non-potable domestic water to the townships of Stuart Mill and Redbank and areas of the Wimmera. Redbank Creek (Redbank) SWSCA is administered by the North Central Catchment Management Authority. Teddington Reservoir SWSCA is administered by the Stuart Mill Water Supply Group and the Wimmera Systems SWSCA is administered by the Wimmera Catchment Management Authority.

The Redbank Reservoir has a catchment of 336 ha, consisting mainly of the upper reaches of the Redbank Creek within the park. The Redbank Reservoir is adjacent to the park and is managed by Central Highlands Water (section 8.3).

The Teddington catchment has a total catchment area of 2730 ha, mostly within the park, including the upper reaches of Strathfillan Creek. The Upper and Lower Teddington Reservoirs supply domestic water to the Stuart Mill community when adequate rainfall is received in the catchment.

Most of the Upper Teddington Reservoir is within the park, as the park boundary runs along the dam wall. The lower side of the dam wall is within a Water Supply Purposes Reserve managed by DEPI. Management of the dam wall is a joint responsibility of Parks Victoria and DEPI.

At present water passes from the Upper to the Lower Teddington Reservoir through an open outlet valve and pipe through the dam wall (sections 5.2 and 7.1). The Lower Teddington Reservoir, which is entirely outside the park, is managed by the Stuart Mill Water Supply Group. An agreement between Parks Victoria, DEPI and the Stuart Mill Water Supply Group is to be developed in relation to Parks Victoria’s role in maintaining the water supply.

In the past, the Upper Teddington Reservoir attracted large numbers of visitors for a variety of water-based recreational activities, including canoeing, fishing and bird watching (chapter 6).

The Wimmera catchment (446 675 ha) was declared in 1959 to protect an area of the Wimmera–Avon Basin that supplies the Wimmera–Mallee Water Supply System.

Potential threats to the special water supply catchments within the park include salinity, erosion, bushfire, and impacts from recreational activities (chapter 6). The major threats to remnant vegetation and waterways in the broader catchments include salinity, erosion, biodiversity decline, damage through stock access, decreased soil health, altered flow regimes, development activities and pest plant and animal invasion (NCCMA 2005).

Aim

- Protect and enhance stream and catchment values.

Management strategies

- Develop an agreement between Parks Victoria, DEPI and the Stuart Mill Water Supply Group to manage water supply issues relating to the Upper Teddington Reservoir (section 7.1).
- Ensure that appropriate erosion control measures are included in park works programs.
- Liaise with the CMAs in relation to broad catchment issues, including altered flow regimes and environmental flows.
- In cooperation with CMAs and adjacent land managers, encourage and support projects that protect, enhance and link remnant vegetation and protect and enhance river health where the outcomes of such projects complement park values (sections 4.4, 8.2 and 8.3).
- Ensure that fire management activities do not adversely affect streams and springs, by identifying catchment values in planning processes and, where possible, avoiding disturbance to SWSCAs and erosion-prone slopes (sections 4.2 and 4.6).

4.4 Vegetation

The park protects almost 4% of the native vegetation in the Goldfields bioregion. Nine ecological vegetation classes (EVCs) have been mapped within the park. Heathy Dry Forest (Northern Foothills floristic community) makes up 42% of the park. Box–Ironbark Forest (Western Goldfields floristic community) and Grassy Dry Forest (Northern Foothills floristic community) cover one quarter of the park each. The creekline and valley areas downslope from these EVCs are
often referred to as ‘mesic or moist gullies’ (section 4.5). Although they make up less than 5% of the total park area, these areas support important remnant EVCs that are poorly represented throughout the bioregion as a result of past land clearing. The EVCs in the creekline and valley areas include Low Rises Grassy Woodland, Alluvial Terraces Herb-rich Woodland and Creekline Grassy Woodland (appendix 3).

An assessment of the quality of the major vegetation types in the park was undertaken in 2005 using the Habitat Hectares approach (Parkes, Newell & Cheal 2003). The quality of vegetation in the park for the major EVC types, except Box–Ironbark Forest, was assessed as good quality compared to EVC benchmarks. Over 25% of the park area is identified as having large old tree sites, which is uncommon in the Box–Ironbark parks. The Box–Ironbark Forest vegetation was assessed as being of moderate quality compared to the benchmark for this EVC. Large old trees were absent or infrequent at assessed sites in Box–Ironbark Forest and Low Rises Grassy Woodland areas (Parks Victoria 2005b), although past studies have identified several large old tree sites within the Box–Ironbark Forest (Soderquist & Rowley 1995, Holland & Cheers 1999, ECC 2001), where protection of the remaining large old trees is important. The lack of large old trees in Box–Ironbark Forest areas is largely a consequence of historic use, particularly more intensive harvesting of these lower-lying areas (section 2.3).

The vegetation structure that provides fauna habitat, particularly the presence of large old trees with hollows and woody debris on the ground, is superior in the Kara Kara National Park compared to all other Box–Ironbark parks in Victoria (section 4.5). This plan applies a Special Protection Area overlays for fauna refuge and large old trees (table 1) that will provide further protection for these values, particularly in regard to the use of fire in ecological management (section 4.6).

Indigenous people recognise vegetation as an intrinsic element of Country, and Traditional Owners maintain a sophisticated knowledge of its values and uses. There are over 300 native vascular plant species recorded in the park, of which 10 are threatened (appendix 4). The park is particularly important in protecting the Lowly Greenhood, Green Leek-orchid and Buloke Mistletoe. There has been limited flora survey work undertaken in the newer areas of the park, and little is known of the park’s non-vascular flora.

A Southern Blue Gum plantation (8 ha) in the park near the Strathfillan Creek up the valley from the Teddington Hut was planted in the 1920s and has never been harvested. The source of the plantation stock is unknown, but it is not indigenous to the park.

An area of about 11 ha, near Cherry Tree Creek, that was cleared and grazed for many years, requires extensive revegetation work.

Risks of most concern to vegetation and flora in the park include (Raulings 2006):

- inadequate knowledge of ecosystem functions and species requirements
- weed invasion and competition, particularly in the creekline and valley areas (section 4.7)
- grazing by introduced and native species including goats, rabbits, deer and kangaroos (section 4.7)
- inappropriate fire regimes (section 4.6)
- damage and fragmentation resulting from recreational or exploitative use of the park, particularly illegal uses including off-road vehicles, trail bikes or horses, rubbish dumping and firewood or rock removal
- drought or other climate change
- structural modification caused by past land uses (section 2.3).

The impacts of future climate change on the vegetation and fauna of the park are unclear, but are likely to include changes in the structure of the park’s vegetation communities, and may increase the vulnerability of certain species to extinction.

To meet government objectives following the ECC recommendations, an ecological management strategy was planned to achieve a parks and reserves system that more closely resembles the pre-European condition and to address broader biodiversity elements.

A key element of the strategy and a major focus of the related research program is a landscape-scale experiment to examine
Strategies for natural values conservation

Changes in forest structure, flora and fauna in response to ecological thinning. The experiment has been established in four parks and reserves (but not in Kara Kara National Park). The findings from this research program will provide the basis for deciding whether or not to implement an ecological thinning program in appropriate parts of the park in the future. Monitoring of forest structure, understorey flora, selected invertebrate groups, arboreal mammals and birds is being undertaken as part of the experiment.

Aims

- Protect indigenous flora and vegetation communities, particularly threatened species.
- Maintain the intact structure and diversity of vegetation communities.
- Improve knowledge of significant flora and threatening processes to improve management, protection and appreciation.

Management strategies

- Implement priority actions from relevant FFG action statements and Environment Protection and Biodiversity Conservation Act (EPBC) recovery plans consistent with DEPI’s Action for Biodiversity Conservation (ABC) database.
- Maintain understorey species recruitment, diversity and cover through planned burning (section 4.6) and pest management (section 4.7) as required.
- Ensure that significant plants and communities are adequately protected from inappropriate land management activities, including fire protection works (section 4.6).
- Protect vegetation from weed invasion and competition, particularly in creekline and valley areas (Low Rises Grassy Woodland, Low Rises Grassy Woodland/Alluvial Terraces Herb-rich Woodland Mosaic and Creekline Grassy Woodland EVCs).
- Refine flora and vegetation management practices according to the latest research and monitoring findings.
- Reflect Indigenous knowledge of vegetation in management practices as appropriate.
- Respect the cultural obligations of Traditional Owners in relation to plants and their significance in all management and visitor activities.
- Manage visitor activities to minimise impacts on flora and vegetation communities.
- Encourage and coordinate surveys and research into:
  - previously unsurveyed areas of the park, particularly areas added after 2002
  - threatened flora and EVCs to improve knowledge of their distribution and management requirements (sections 8.2 and 8.3)
  - adaptive management to assist vegetation communities survive the impacts of climate change
  - Indigenous knowledge relating to vegetation or flora species and management (sections 5.1, 8.2 and 8.3).

4.5 Fauna

Over 200 native vertebrate animal species have been recorded in the park, of which 21 are considered threatened (appendix 5). The park is particularly important for the protection of the nationally endangered Swift Parrot and is also a stronghold for large hollow-dwelling birds of prey, including the Barking Owl and Powerful Owl. With a quarter of the bioregional records for the Powerful Owl, the park is recognised as being the most important for Powerful Owl within Victoria’s Box–Ironbark areas. The park includes four Powerful Owl Management Areas totalling 4066 ha (ECC 2001).

There are 13 large old tree sites within the park, totalling 3643 ha (ECC 2001, Soderquist & Rowley 1995, Holland & Cheers 1999). Threatened species that are dependent on habitat containing large old trees and hollows include the Squirrel Glider, Brush-tailed Phascogale, Brown Treecreeper and Tree Goanna. The large contiguous area of high-quality habitat provided by the park could make the Brush-tailed Phascogale populations of the park the most viable in Victoria (ECC 2001). Other species in the park that are
hollow-dependent and provide a food source for the larger birds of prey include the Sugar Glider, Feathertail Glider, Brushtail Possum, Ringtail Possum, Yellow-footed Antechinus and several species of bat. Thirteen species of the threatened Victorian Temperate-Woodland Bird Community have also been recorded in the park (appendix 5). In the past, the Upper Teddington Reservoir has attracted a variety of threatened wading birds and ducks, including the Pied Cormorant, Australasian Shoveler, Hardhead, Musk Duck and Blue-billed Duck.

The park contains 12 fauna refuges, covering 623 ha (Soderquist & Rowley 1995; Holland & Cheers 1999). These are largely in the lower valleys and creeklines and provide refuge for fauna in times of drought or fire and include some springs and soaks. They are also important for mammal reproduction.

Special Protection Area overlays for fauna refuges and large old trees will provide further protection for these values in particular regarding the ecological management of fire and disturbance by recreation activities (chapter 6).

Risks of most concern include predation by cats and foxes on mammals and woodland birds, and burning regimes that are inappropriate for woodland birds (Raulings 2006). Other risks of concern to the park’s fauna include:

- inadequate knowledge of ecosystem functions and species requirements
- competition for hollows (Johnstone & Kirby 2007), nectar resources (Paton 1996) and altered pollination processes by feral European Honey Bees
- reduced food resources through competitive grazing of rabbits, hares, goats, deer, wallabies and kangaroos
- drought and climate change
- habitat disturbance, damage or removal resulting from park management activities, including management of fire and recreation, and from illegal activities such as firewood and rock removal, off-road driving or riding, and rubbish dumping.

There is concern that high populations of native mammals, including Eastern Grey Kangaroos, Black Wallabies and Koalas, are adversely affecting the park’s natural values. Kangaroo numbers in the park are considered to be above normal because of water availability and grazing opportunities on adjacent private land. The development of a kangaroo management strategy that encompasses the park and adjacent public and private land may be required to guide the management of kangaroos and ameliorate impacts on the park’s values.

Climate change may adversely affect habitat structure, and evidence from previous prolonged droughts suggests that arboreal fauna and canopy-dependent birds may be severely affected. Links to large areas of remnant vegetation outside the park will be important for fauna dispersal and re-colonisation (section 7.4).

Aims

- Protect indigenous fauna, particularly threatened species.
- Improve knowledge of significant fauna and threatening processes to improve management, protection and appreciation.

Management strategies

- Implement priority actions from relevant approved FFG action statements and EPBC recovery plans, consistent with DEPI’s Action for Biodiversity Conservation (ABC) database.
- Maintain a pest animal control program to protect, in particular, mammals and woodland birds (section 4.7).
- Ensure that significant fauna habitats, particularly fauna refuges, large old trees, hollow trees and woody debris on the ground, are adequately protected from inappropriate land management activities, including fire protection works (section 4.6).
- Manage visitor activities to minimise impacts on fauna (chapter 6). Exclude organised events within a 300 m radius of known Powerful Owl and Barking Owl breeding sites during the breeding and fledging period (May to December) (section 7.3).
- Respect the cultural obligations of Traditional Owners in relation to fauna.
and their significance in all management and visitor activities.

- Where appropriate, encourage research to identify Indigenous knowledge relating to fauna.
- Encourage and coordinate surveys and research into significant fauna to improve knowledge of the distribution, management requirements and populations of threatened species (sections 8.2 and 8.3).
- Regularly assess kangaroo and wallaby numbers and impacts on park values. If impacts become apparent, develop a kangaroo management strategy, in accordance with Parks Victoria’s operational policy.

### 4.6 Fire management

The National Parks Act requires the Secretary to DEPI to ensure that appropriate and sufficient measures are taken to protect parks from injury by fire.

DEPI is the lead agency for fire management on Victoria’s public land. Parks Victoria works closely with DEPI to ensure that fire management addresses risks to human life, property and essential services and maintains or enhances biodiversity, a diversity of growth stages of vegetation, and ecological, geological, cultural, water production and other values.

Fire management is conducted in accordance with the Code of Practice for Bushfire Management on Public Land (DSE 2012). The code was revised in 2012 to incorporate findings and recommended changes in practice arising from the 2009 Victorian Bushfires Royal Commission. The Code requires DEPI to prepare a Strategic Bushfire Management Plan for public land in each region – including parks – with 3-year Fire Operations Plans and annual action plans developed for local areas. These plans define where bushfire prevention and preparedness works such as planned burning, slashing, mowing and clearing activities will be undertaken. The plans remain current until new plans are approved. The Code also sets out detailed requirements and processes for bushfire response and recovery.

Fire management zoning is used to define areas where there is a greater focus on the mitigation of risk to life, property and community assets and areas through more intensive planned burning to areas where there is greater focus on ecological resilience, water catchment and other landscape values through planned burning for specified ecosystem responses and in some cases exclusion of burning in areas that are intolerant to fire.

Under the Murray Goldfields Proposed Fire Management Zoning (DEPI website), most of the park is to be managed as for ecological management. There are Asset Protection Zones in the north around St Arnaud and in the south of the park and several Bushfire Moderation Zones. The Mt Separation Reference Area is covered by a Planned Burning Exclusion Zone. The West of England Firetower is operated by DEPI throughout most of the declared fire danger period (section 7.1).

There is little information about past fires, and most of the park is thought to be long unburnt. The extent of previous Aboriginal burning is largely unknown (ECC 1997) and the effect on flora and fauna communities and individual flora and fauna species is also largely unknown (Tolsma, Cheal & Brown 2007).

Fire is a natural process in virtually all Australian land systems. The pattern of fire varies across the landscape and over time making the extent to which fire can be managed complex and variable. This challenge is likely to be exacerbated by predicted changes in the climate. Fire management, including planned burning, will need to consider changes in vegetation structure and faunal habitat that are likely to occur (section 4.4 and 4.5).

Fire is a powerful management tool in maintaining the vigour and diversity of the park’s vegetation but may have both favourable and adverse effects on individual species (section 4.4).

No extensive bushfires have been recorded within the park, although a number of lightning strikes are known to have started small fires that may not have been included in fire records.

Bushfire and the lack of knowledge about appropriate fire frequencies, intensity and timing for different vegetation types within the park are considered key risks to the park’s vegetation and fauna (Raulings 2006) (sections 4.4 and 4.5). Parks Victoria and DEPI will
assess fire ecology requirements for the park and surrounding public land to guide the ecological management of fire.

Bushfire control activities including the construction of control lines, the use of phosphate-based fire retardants, and high fire intensity may result in the fragmentation, modification or loss of native flora, fauna habitat, and cultural sites, places, landscapes and objects.

**Aims**

- Protect park values from the deleterious effects of bushfire or inappropriate fire regimes.
- Cooperate with relevant agencies and land managers in the protection of human life, neighbouring properties and assets.

**Management strategies**

- **Implement integrated fire management in accordance with the North West Strategic Bushfire Management Plan and the Code of Practice for Bushfire Management on Public Land (DSE 2012).**
- **Maintain an adequate network of roads for access by fire-fighting vehicles (section 6.2 and table 3).**
- **Work with DEPI to ensure that the structural integrity of the park’s vegetation is protected from damage by fire, particularly fauna refuges, large old hollow trees and woody debris on the ground.**
- **Provide input into the development of Fire Operations Plans and updating fire management zones including for protecting the southern sections of the park considering the park’s fire ecology requirements.**
- **Develop an assessment of fire ecology for the park and surrounding public land that will:**
  - identify the ecological fire regime requirements for vegetation communities within the park
  - identify priority areas for the appropriate use of planned fire for ecological purposes
  - **identify areas for fire exclusion in order to achieve the desired ecological outcomes such as maintaining high-quality habitat, particularly mature trees with hollows, organic litter, logs on the ground and fauna refuges (section 4.4 and 4.5).**
  - **In partnership with DEPI, work towards the use of planned fire where appropriate to reduce fuel loads in order to protect life and property, and to meet ecological and cultural requirements.**
  - **Encourage research into:**
    - appropriate fire regimes for the vegetation communities in the park
    - Indigenous knowledge relating to fire in cooperation with the Traditional Owners.

**4.7 Pest plants and animals, and diseases**

**Pest plants**

Although most of the park is relatively weed free, weeds in the valleys and creeklines and along roads, park boundaries and previously disturbed areas of the park are a concern.

The weed cover in EVCs in the park was assessed in 2005 using the Habitat Hectares methodology (Parks Victoria 2005b). The majority of the park is upland hills, rises and ridges (section 4.4) that are dry and unsuitable for most introduced weeds and have therefore remained relatively weed free. The lower slopes of valleys and creeklines (supporting Low Rises Grassy Woodland, Creekline Grassy Woodland and Alluvial Terraces Herb-rich Woodland EVCs) are most susceptible to weed invasion because of the greater soil fertility and water availability, coupled with disturbances from past land uses (section 2.3). In these areas weed species may outcompete indigenous species, resulting in a decreased cover and abundance of indigenous species.

Pest plants of concern in the park include Flatweed/Cat’s Ear, *Briza* species, *Vulpia* species, Horehound, St John’s Wort, Spear Thistle and Bulbous Meadow-grass (Raulings 2006). Horehound and St John’s Wort are local priority weeds in the region (DPI 2003b). *Briza*, *Vulpia*, Spear Thistle, St John’s Wort and Horehound are highly invasive weeds.
Strategies for natural values conservation

(Weiss & Iaconis 2002). Future weed threats include European Olive, Cootamundra Wattle and Bridal Creeper.

**Pest animals**

Predation of native fauna by cats and foxes is a significant threat, particularly to ground-dwelling mammals and woodland birds (section 4.5) (Raulings 2006). In the park, the Brush-tailed Phascogale is at medium risk from the threat of fox predation (Robley & Choquenot 2002).

Rabbits pose a particular threat to Lowly Greenhood, Clover Glycine and Green Leek-orchid by inhibiting the growth and regeneration of these threatened species. The habitat degradation caused by rabbits is also considered a threat to Brush-tailed Phascogale populations (Long et al. 2003). Burrowing by rabbits also contributes to erosion in the park.

Populations of kangaroos and wallabies in the park are thought to have increased in recent years, resulting in increased grazing pressure (section 4.5). Overgrazing by both native and introduced browsers and grazers (rabbits, goats, deer and hares) can reduce the cover and diversity of native understorey species and in the longer term impact on the species composition of the overstorey through lack of recruitment. Grazing pressure is also more concentrated in the lower valleys and creeklines of the park where the increased moisture and soil fertility support grass and herb understorey species that are palatable to grazing animals (section 4.4).

Competition between feral (unmanaged) European Honey Bees and native nectar-feeding and hollow-dependent species is not fully understood, and further research is warranted. Parks Victoria will work in association with the Victorian Apiarists’ Association and local apiarists to minimise risks to park values (section 7.2).

**Diseases**

There are no known diseases in the park that threaten park values.

**Aims**

- Control and where possible eradicate pest plant and animal species from the park.
- Minimise the impact of control programs on native flora and fauna.
- Restore native vegetation to areas where non-indigenous plants have been removed.

**Management strategies**

- Control or eradicate pest plant and animal species in accordance with the following priorities:
  - protection of threatened species particularly Clover Glycine, Green Leek-orchid and Brush-tailed Phascogale
  - vigorous new or emerging weeds before they become established
  - priority weeds listed under the Catchment and Land Protection Act, particularly Horehound and St John’s Wort (section 7.4).
- Monitor foxes, rabbits, cats and goats using approved pest animal monitoring protocols. Undertake control programs for pest animals to meet annual targets that reduce the impacts on park values.
- Use pest control methods that minimise disturbance to natural systems. Avoid or carefully control soil disturbance and the use of chemicals, especially where this could have an adverse impact on natural or cultural values.
- Ensure that all significant pest plant and animal control activities in the park are incorporated into Parks Victoria’s Environmental Information System.
- Work with the relevant Registered Aboriginal Party to ensure that Aboriginal places and objects are not adversely affected by management activities such as weed or rabbit control programs.
- Encourage collaborative research into grazing impacts, particularly on Creekline Grassland, Alluvial Terraces Herb-rich Woodland Mosaic and Low Rises Grassland EVCs (section 8.2).
- Destroy wild populations of European Honey Bees, particularly where they pose a risk to threatened species or park visitors.
5 STRATEGIES FOR CULTURAL VALUES CONSERVATION

5.1 Indigenous cultural heritage

Indigenous tradition indicates that the park is part of *Country* of the Dja Dja Wurrung.

Archaeological survey identified a number of Aboriginal places and objects in the park including scarred trees, artefact scatters and a rockwell complex (Edmonds 2007). The Dja Dja Wurrung people consider all landscape elements of their *Country* and all Aboriginal sites or objects recorded there of high significance (Edmonds 2007). The rockwells in particular are highly significant to the contemporary Aboriginal community because of their known significance in terms of ceremony and religion (Edmonds 2007).

The archaeological survey (Edmonds 2007) was undertaken in collaboration with representatives of the Dja Dja Wurrung people and the Ballarat and District Aboriginal Cooperative, but covered only one per cent of the total park area. Thus most of the park area remains unsurveyed, and there are potentially many more Aboriginal places and objects throughout the park.

There is evidence of local Aboriginal people working on grazing runs prior to the gold rush. The 1847 stores book for Tottington Run, one of the early properties in the area, contains records of Aboriginal people working on the Run at similar wages to their white counterparts (B. Small pers. comm.).

*Kara Kara* means ‘gold’ in the Dja Dja Wurrung language (Tully 1997) and was reinstated as the name of the park in 2012 (section 5.2).

All Aboriginal places, objects and Aboriginal human remains are protected under the Aboriginal Heritage Act (section 2.5). It is an offence to do any act that will harm or is likely to harm Aboriginal cultural heritage except in accordance with a Cultural Heritage Permit or approved Cultural Heritage Management Plan. Through Aboriginal Affairs Victoria (AAV), the Department for Planning and Community Development (DPCD) is responsible for administering legislation protecting cultural heritage.

Issues relating to the protection of Aboriginal cultural heritage are approached in accordance with the Aboriginal Heritage Act. Issues relating to native title are dealt with according to the Native Title Act (section 2.5).

Risks to Aboriginal places and objects in the park include:
- bushfire or planned burning activities
- erosion
- soil disturbance caused by park management or development activities such as the construction or widening of roads or tracks, the development or alteration of visitor facilities, and pest management activities such as weed or rabbit control.

Aims
- Protect Aboriginal cultural heritage from interference or damaging activities.
- Respect the views of Traditional Owners in managing the park.

Management strategies
- *Protect all Indigenous places and objects from disturbance and damage in partnership with the relevant Registered Aboriginal Party, and in cooperation with DPCD (section 8.3), and in accordance with:*
  - relevant legislation including the Aboriginal Heritage Act
  - relevant cooperative management agreements
  - *Parks Victoria’s Guidelines for Working with Aboriginal Communities and Protection of Cultural Sites (Parks Victoria 2002).*
- *Assess annual park and volunteer programs to integrate relevant Indigenous practices and minimise the potential for impact of management activities on Aboriginal cultural heritage in consultation with the relevant Registered Aboriginal Party.*
- *Work with the Registered Aboriginal Party to assess and identify Indigenous cultural*
heritage suitable for promotion and interpretation (sections 6.1 and 8.2).

- Liaise with the Traditional Owners to investigate the use of Aboriginal language in naming features of the park.

- Maintain confidentiality in respect of Indigenous cultural obligations, knowledge, places, objects and aspirations, in accordance with the views of the relevant Traditional Owners (sections 6.1 and 8.2).

- Where appropriate, encourage research into the Indigenous cultural heritage relating to the park in collaboration with the relevant Registered Aboriginal Party and relevant Indigenous communities (section 8.3). Use results to target the protection of Aboriginal cultural heritage in the park.

### 5.2 Historic heritage

Major Thomas Mitchell passed through the west of the park during his exploration of western Victoria in 1836. His glowing reports of the fertility and attractiveness of the country were a spur to its settlement (Crafter 1994). There is a plaque to commemorate the exploration party’s camp site in the park off Boundary Road. There is also a Shire-managed tourism sign on the Sunraysia Highway at the Rostron – Stuart Mill Road junction directing people to the site as part of the Major Mitchell Trail tourist route (figure 3).

Squatters arrived in the park area in the early 1840s. Two pastoral runs, Strathfillan and Ramsbottom, covered the majority of the northern areas of the park, and Moriesk, Ranges and Mountain Creek runs covered parts of the southern areas (Palmer 1955). Strathfillan Creek derives its name from the Strathfillan Run (Crafter 1994). Ramsbottom Run was later managed as part of the Tottington Run (Crafter 1994). Historic places in the park associated with past grazing activities include the ‘chock and log’ fences and sheepyards (section 2.3) and other remnants of fences. The chock and log fence along Centre Road marks the boundary between the original Strathfillan and Tottington runs (LCC 1997).

There was much historic mining activity in the Redbank area, commencing in 1861. A number of mining-related historic places are recorded within the park, and there are others, mostly of regional significance (LCC 1997), in the adjacent Redbank Nature Conservation Reserve and on freehold land.

The New Years Flat/Crawlers Gully area within the park comprises deep alluvial sinkings. The Grumblers Gully (known as Long Gully) shallow alluvial diggings are significant as this is the site where gold was first discovered at Redbank (Bannear 1993b).

Rostrons alluvial diggings supported a small mining population for many years (Palmer 1955). Rostrons puddlers with shallow alluvial sinkings nearby, dams and a water race in the vicinity of Rostrons and Centre Roads within the park survive from the late 1890s. Puddlers, dams and alluvial diggings in the Victoria Gully area of the park were also used during the same period (Bannear 1993a).

Evidence of mining activities at Cement Lead Diggings includes a line of rectangular shafts ringed by small mounds of mullock, some of which retain the traces of wooden collars (Bannear 1993a).

Rocks with the names of woodcutters carved in them from 1867 and 1899 are located by a creek swimming hole that was probably used for recreation (LCC 1997).

In the southern areas of the park, there are several heritage places and landscapes associated with the utilisation of forest timbers, most of which are of local significance (LCC 1997):

- Carapooee West Boys Camp, operated by the Forests Commission of Victoria during the 1930s, provided employment for up to 50 boys undertaking silvicultural forestry work. Relics include the remains of a stone Chimney, an asphalt area, a concrete slab, wooden stumps, collapsed and decaying mud bricks and a rubbish dump (Bannear 1997)

- Internment camps where Italian people interned during World War II (section 2.3). Detainees worked at thinning the forest. Artefacts include dumps of tins, bottles and shoes

- Carapooee West Sawmill is significant, being the only identified example of a 19th century sawmill in the St Arnaud Region
The multi-stemmed (coppiced) trees with predominantly straight stems, smaller diameters and younger age class in the northern sections of the park reflect the cyclical forest harvesting regimes applied in the past, and the extent of the activities (section 4.1).

Charcoal pits from the World War II era are still visible today, some with the venting system still intact (LCC 1997). There are some individual plantings of exotic pine trees throughout the park which may have historical significance. There is no recruitment of new seedlings from these mature trees.

The Upper Teddington Reservoir and associated water catchment works within the upper Strathfillan catchment are examples of early reservoir engineering and catchment and diversion drains. The Upper Teddington Reservoir was constructed in 1898. The weirs, rockbars, drainage lines, levees, rock-lined aqueducts and catch drains were constructed in the 1940s. Hundreds of metres of creeklines were also sealed and concreted as part of these works (LCC 1997). The Upper Teddington Reservoir, together with the Lower Teddington Reservoir (outside the park, constructed in 1929), supplied water to the Stuart Mill and St Arnaud communities for almost 50 years. The Teddington Reservoirs were abandoned as a supply for St Arnaud in 1947 (Crafter 1994), but when holding water they still supply domestic water to the Stuart Mill township (sections 2.3 and 4.3).

Kara Kara was the former name of the Shire in which the park is located. The name was lost with the amalgamation of Shires. There was considerable community interest in acknowledging the park’s history and Aboriginal heritage (section 5.1) by reinstating Kara Kara as the name of the park.

Extensive consultation was undertaken on the proposal to change the park name in accordance with the Guidelines for Geographic Names (DSE 2010) and the Geographic Places Names Act 1998 (Vic.). The name of the park was changed from St Arnaud Range National Park to Kara Kara National Park in 2012 following endorsement of the proposal by the Registrar of Geographic Names and amendment of the National Parks Act.

Potential threats to historic places in the park include illegal off-road trail bike and vehicle activities, disturbance of heritage sites, theft of relics, damage caused by recreational activities, and bushfire and planned burning.

Places of historic and cultural significance are managed in accordance with the Burra Charter (Australia ICOMOS 1999) and the provisions of the Heritage Act 1995 (Vic.) and Victoria’s Heritage: Strengthening our communities (Heritage Victoria 2006).

Aims

- Conserve and protect places and values of historic and cultural significance.
- Educate staff and park visitors about the historic heritage of the park to aid in the management and protection of heritage values.

Management strategies

- Foster partnerships with the Northern Grampians and Pyrenees Shires and Heritage Victoria to raise awareness and appreciation of the cultural heritage of the park (section 8.3).
- Document heritage values and record the information in Parks Victoria’s information systems, and report all archaeological sites and relics to Heritage Victoria.
- Record, research and retain historic places names in the park.
- Assess threats to significant historic places, including Rostrons puddlers, dams and water race, Victoria Gully workings, New Years Flat/Crawlers Gully, and Carapooee West Boys Camp and Sawmill, and develop appropriate maintenance programs.
- Provide opportunities for research into social history, technological change, past land uses and their impact on the environment or the significance of particular heritage places and values.
- Interpret heritage and other values of the park at visitor camping areas (section 6.3).
6 STRATEGIES FOR VISITORS

6.1 Information, interpretation and education

Providing information, interpretation and education can help orientate and inform visitors, foster an understanding and appreciation of the park’s special natural and cultural values, build understanding of management activities and help visitors to experience, understand and appreciate the park in a safe and appropriate manner. Parks Victoria delivers information, interpretation and education to visitors by various means, including its website, ranger patrols, Park Notes, signage, tourism brochures and other publications, displays, and licensed tour operators. These services may be developed and provided in collaboration with other agencies.

Although many of Victoria’s parks and reserves play an integral role in the delivery of nature-based tourism, the Box-Ironbark parks are unlikely to become a key destination themselves. However, the park could become a valuable complementary product to existing regional tourism products.

Parks Victoria provides park information to regional tourism operators and businesses and hosts park familiarisation tours for their staff. Pre-visit park information is provided at the St Arnaud and Avoca Visitor Information Centres, through the St Arnaud Development and Tourism Association, through displays and face-to-face park ranger talks at regional events and festivals, and is also available on Parks Victoria’s website. Stronger linkages could be developed between the park and historic buildings and mining sites in and around St Arnaud, Stuart Mill and Avoca, and local wineries.

New signs have been erected at major park entrances, directional signs have been upgraded throughout the park, and the information board at Teddington Camping Area has been upgraded since the declaration of the park. In addition, the Stuart Mill Reserves Committee, which manages the Lower Teddington Reservoir, has worked with Parks Victoria to provide a park information board in the Stuart Mill township, one of the gateways to the park. Tourism and directional signage from major roads to the park could be improved. These signs are managed by the Northern Grampians and Pyrenees Shires or VicRoads.

Interpretive services, including ranger-led tours and talks, are given to schools and other interested groups such as the St Arnaud Field Naturalists Club. The park presents opportunities to develop interpretive themes related to its largely undisturbed Box–Ironbark vegetation, diverse fauna, Indigenous heritage, historic connections such as bee keeping and uses (particularly water supply), mining and timber harvesting (section 6.3).

Aims

- Promote and encourage visitors’ discovery, enjoyment and appreciation of the park’s natural and cultural values in a safe and appropriate manner through provision of information, interpretation and education.
- Encourage public support for parks and park management practices.

Management strategies

- Provide and support high-quality opportunities for the range of user groups to discover, experience and understand the park’s natural and cultural values. Target visitors from all user groups through a range of tourism, information, interpretive and education mediums.
- Deliver messages about the following values and themes:
  - the intact Box–Ironbark vegetation and landscapes of the park and the fauna it supports
  - Indigenous cultural heritage, including the use of Indigenous names for natural features, plants and animals
  - heritage values and historic connections and uses of the park
  - appropriate visitor behaviour, including minimal impact techniques and adherence to codes of conduct appropriate to their activity, to protect park values and maximise visitor safety.
Strategies for visitors

- Work with Tourism Victoria to ensure that park values feature prominently in regional tourism strategies.

- Deliver information, interpretation and education programs by:
  - providing park information at the Avoca and St Arnaud Tourist Information Centres, through the St Arnaud Development and Tourism Association and on Parks Victoria’s website
  - maintaining and updating park signage as required
  - attending regional events and festivals as appropriate
  - conducting tours, talks and programs for interest groups and schools.

- Provide appropriate opportunities and encourage and support Indigenous communities to participate in the interpretation of Indigenous cultural heritage relating to the park, with the agreement of the Registered Aboriginal Party (section 8.2).

- Host park visits for regional tourism stakeholders to familiarise them with park opportunities, and explore the role the park can play in complementing regional tourism products and experiences (sections 8.1 and 8.2).

- Work with the Pyrenees and Northern Grampians Shire Councils and VicRoads to improve directional signage to the park from major roads and at gateway townships to the park (section 8.3).

- Regularly evaluate information and interpretive programs related to the park.

6.2 Vehicle access

Access
The main vehicular access routes to the park are via the Sunraysia Highway to the east of the park, from St Arnaud in the north and Avoca in the south. There are several access roads into the park: Rostron–Stuart Mill Road, Teddington Road, Mt Separation Road and Barkly–Redbank Road (figure 3). All except the Mt Separation Road are suitable for use by two wheel drive vehicles. Mt Separation Road is suitable for use by two wheel drive vehicles from the Sunraysia Highway to the planned 80 Acres Camping Area (figure 3 and section 6.3).

Most of the visitor sites, including Rostron Picnic Area, Teddington Camping Area, Teddington Hut and planned 80 Acres Camping Area, can be accessed in two wheel drive vehicles. A four wheel drive vehicle is required to access the West of England Firetower.

Areas of the park to the north of Rostron – Stuart Mill Road are all suitable for two wheel drive vehicles. Several of the roads in the southern section of the park have steep and rough sections that are only suitable for four wheel drive vehicles (table 3 and figure 3).

The park’s road network and planned future management are presented in table 3 and figure 3. The roads are used variously for visitor access, park management and transit through the park. Dodger, Pluggers and Wagon Tracks are required for fire access and may be used by management vehicles and walkers only. Some roads in the park are currently closed seasonally to protect the road surface from vehicle damage during wet weather and for visitor’s safety.

Of all the Box–Ironbark national and State parks, Kara Kara National Park is the least fragmented by roads, particularly the central core of the park that was the former Kara Kara State Park area (University of Ballarat 2005). Rehabilitation of informal tracks that resulted from past timber and mining activities and are not required for access will further reduce fragmentation of the park.

Road maintenance works have the potential to damage the park’s natural and cultural values where they extend beyond the existing road verge.

Four wheel driving
The whole park’s road network is suited to touring in four wheel drive vehicles and on trail bikes. Popular routes for individuals and organised four wheel drive groups are along Centre Road, which traverses the north–south length of the park and offers many vantage points across the landscape, and the Mount Separation Road in the east of the park. Centre Road contains ‘breach and bar’ mounds along steeper sections of the road, ensuring stormwater does not erode the road surface. It
is suited only to four wheel drive vehicles with high clearance.

**Other uses**
The northern section of the park, to the north of Rostron – Stuart Mill Road and the areas around the Upper Teddington Reservoir, is most suited to car touring in two wheel drive vehicles and on motorbikes.

The road network in the park is also available for trail bike riding, bicycle riding, and walking and most is available for horse riding (table 3).

Car rally events without time or speed as a component are permitted in the park subject to an event permit. The park is not considered an appropriate location for car rallying that involves time and speed, because of steep and erodible roads and tracks. Confederation of Australian Motor Sports approved car rallying events such as these can be conducted outside the park in State forest areas (DSE 2003a).

**Aims**
- Provide and maintain a sustainable network of motor vehicle roads appropriate for visitor use and management.
- Minimise the impact of road and track management on the park’s values.

**Management strategies**
- Manage and maintain the road network for visitors and management access in accordance with table 3 and figure 3.
- Maintain appropriate signage on all vehicle access roads (section 6.1).
- Provide updated information on the managed road network within the park to emergency services and statewide road database systems.
- Ensure road maintenance works do not damage natural or cultural values by ensuring that road maintenance is conducted in a manner that will not increase the amount of road verge impacted over time.
- Continue to implement seasonal road closures as necessary to protect park values and visitors as shown in table 3 and figure 3.
- Support four wheel drive clubs in producing a four wheel drive touring guide that includes four wheel driving opportunities offered in the park.
- Promote Four Wheel Drive Victoria’s Code of Ethics for the use of four wheel drive vehicles.
- Close and rehabilitate informal tracks that are not part of the track network (table 3) to reduce fragmentation and promote connectivity of habitat.
- Work with DEPI, Northern Grampians Shire and Pyrenees Shire to ensure that the maintenance of vehicular roads through the park is compatible with the protection of the park’s natural and cultural values (sections 4.1-4.5, 5.1 and 5.2).
- Permit car rally events without time or speed components, subject to appropriate conditions detailed in an event permit.

**6.3 Visitor site activities**
The park’s expansive areas of intact landscapes and vegetation are a major drawcard for nature enthusiasts, providing the best opportunity for visitors to experience a sense of what pre-settlement Box–Ironbark forests and landscapes were like.

The most popular activities undertaken in the park by local and regional visitors are bushwalking, nature studies, camping and photography. Four wheel driving and car touring are also popular activities, with the park offering a variety of two and four wheel drive experiences (section 6.2 and table 3). In the past when the Upper Teddington Reservoir held water, fishing for trout and redfin and camping at the Teddington Camping Area were most popular.
### TABLE 3 MANAGEMENT OF ACCESS ROADS

<table>
<thead>
<tr>
<th>ROAD / TRACK</th>
<th>CURRENT CATEGORY AND USE</th>
<th>PLANNED CATEGORY AND USE</th>
<th>OTHER USES</th>
<th>ACTIONS/COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MANAGED BY NORTHERN GRAMPIANS SHIRE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre Road(^1) from Aliens Camp Road to Little Church Road</td>
<td>5C/ M2</td>
<td></td>
<td></td>
<td>Provides through access for private property and park access, single-laned.</td>
</tr>
<tr>
<td>Rostron–Stuart Mill Road</td>
<td>5C/ M2</td>
<td></td>
<td></td>
<td>Provides through access for private property and park access, single-laned.</td>
</tr>
<tr>
<td><strong>MANAGED BY PYRENEES SHIRE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barkly–Redbank Road</td>
<td>5C/ M2</td>
<td></td>
<td></td>
<td>Provides through access for private property and park access, single-laned.</td>
</tr>
<tr>
<td>Centre Road(^1) from Barkly–Redbank Road to eastern park boundary</td>
<td>5C/ M2</td>
<td></td>
<td></td>
<td>Provides through access for private property and park access, single-laned.</td>
</tr>
<tr>
<td><strong>MANAGED BY DEPI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collisons Gully Road</td>
<td>5C/ M2</td>
<td></td>
<td></td>
<td>Road forms boundary between park and State forest. Provides through access for private property and park access, single-laned.</td>
</tr>
<tr>
<td><strong>MANAGED BY PARKS VICTORIA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80 Acres Track(^2)</td>
<td>5E/ M4</td>
<td>5E/ M2</td>
<td>W, B</td>
<td>All</td>
</tr>
<tr>
<td>Aliens Camp Road</td>
<td>5D/ M2</td>
<td>5D/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Barkly Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Big Tree Road</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Blue Gum Track(^2)</td>
<td>5E/ M4</td>
<td>5E/ M4</td>
<td>W, B</td>
<td>W, B</td>
</tr>
<tr>
<td>Border Track</td>
<td>5D/ M2</td>
<td>5D/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Road / Track</td>
<td>Current Category and Use</td>
<td>Planned Category and Use</td>
<td>Other Uses Current</td>
<td>Planned</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>--------------------------</td>
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</tr>
<tr>
<td>Boundary Road</td>
<td>5D/ M2 &amp; M4</td>
<td>5D/ M2 &amp; M4</td>
<td>W, B</td>
<td>W, B, H*</td>
</tr>
<tr>
<td>Boys Camp Road</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Camp House Track</td>
<td>5E/ M4</td>
<td>5E/ M4</td>
<td>W, B</td>
<td>W, B</td>
</tr>
<tr>
<td>Centre Road from Little Church Road to Barkley-Red Bank Road</td>
<td>5E/ M2 &amp; M4</td>
<td>5E / M2 &amp; M4</td>
<td>W, B, H*</td>
<td>W, B, H*</td>
</tr>
<tr>
<td>Cherry Tree Creek Road</td>
<td>5D/ M2</td>
<td>5D/ M2</td>
<td>W, B</td>
<td>All</td>
</tr>
<tr>
<td>Chimney Track&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5E/ M4</td>
<td>5E/ M4</td>
<td>W, B</td>
<td>W, B</td>
</tr>
<tr>
<td>Clovers Road&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Deadmans Track&lt;sup&gt;2&lt;/sup&gt;</td>
<td>5E/ M4</td>
<td>5E/ M4</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Dickies Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Diggers Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Dodgers Track</td>
<td>5E/ MV</td>
<td>5E/ MV</td>
<td>W, B</td>
<td>All</td>
</tr>
<tr>
<td>Fishermans Hut Track&lt;sup&gt;2&lt;/sup&gt;</td>
<td>5E/ M4</td>
<td>5E/ M4</td>
<td>W, B</td>
<td>W, B</td>
</tr>
<tr>
<td>Fyffe Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td><strong>Road / Track</strong></td>
<td><strong>Current Category and Use</strong></td>
<td><strong>Planned Category and Use</strong></td>
<td><strong>Other Uses</strong></td>
<td><strong>Actions / Comments</strong></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------------------------</td>
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<td>------------------------</td>
</tr>
<tr>
<td>Jacky Willis Road</td>
<td>5E/ M4</td>
<td>5D/ M4</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Maintain dry-weather access. Provides park access and management, single-laned.</td>
</tr>
<tr>
<td>Lambing Flat Track²</td>
<td>5E/ M4</td>
<td>5E/ M4</td>
<td>W, B</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Permit horses. Seasonal road closure. Northern sections require 4WD with high clearance, southern sections are accessible by 2WD vehicles. Provides park access and management.</td>
</tr>
<tr>
<td>Little Church Road¹</td>
<td>5D/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provides park access and management.</td>
</tr>
<tr>
<td>Log Gate Road</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provides park access and management.</td>
</tr>
<tr>
<td>Lookout Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provides park access and management.</td>
</tr>
<tr>
<td>Max Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provides park access and management.</td>
</tr>
<tr>
<td>Micks Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provides park access and management.</td>
</tr>
<tr>
<td>Mount Separation Road</td>
<td>5D &amp; 5E/ M4</td>
<td>5D &amp; 5E/ M4</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Single-laned dry weather track from Sunraysia Highway to Blue Gum Track. Single lane, unformed earth track from Blue Gum Track to Centre Road. Maintain dry-weather access. Provides park access and management, single-laned.</td>
</tr>
<tr>
<td>No Thru Road</td>
<td>5E/ M4</td>
<td>5E/ M2</td>
<td>W, B</td>
<td>W, B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upgrade to two-wheel drive standard. Provides park access and management.</td>
</tr>
<tr>
<td>Pluggers Track</td>
<td>5E/ M2</td>
<td>5E/ MV</td>
<td>W</td>
<td>W</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Close to public. Fire access track. Provides park access and management.</td>
</tr>
<tr>
<td>Shearing Shed Road</td>
<td>5D/ M2</td>
<td>5D/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Maintain dry-weather access. Provides park access and management, single-laned.</td>
</tr>
<tr>
<td>Stricta Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Water access for fire management. Provides park access and management.</td>
</tr>
<tr>
<td>Stuart Mill Gap Road</td>
<td>5D/ M2</td>
<td>5D/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Maintain dry-weather access. Provides park access and management, single-laned.</td>
</tr>
<tr>
<td>Teal Track</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Water access for fire management. Provides park access and management.</td>
</tr>
<tr>
<td>ROAD / TRACK</td>
<td>CURRENT CATEGORY AND USE</td>
<td>PLANNED CATEGORY AND USE</td>
<td>OTHER USES</td>
<td>ACTIONS/ COMMENTS</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------</td>
<td>--------------------------</td>
<td>------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Teddington Road</td>
<td>5C &amp; 5D/ M2 &amp; M4</td>
<td>5C &amp; 5D/ M2 &amp; M4</td>
<td>W, B</td>
<td>Single lane unsealed, formed road and two-wheel drive standard from park boundary at Stuart Mill entrance to Teddington Hut. Single lane, dry weather and four-wheel drive standard from Teddington Hut to Centre Road. Horses not permitted.</td>
</tr>
<tr>
<td>Victoria Dam Track</td>
<td>5E/ M4</td>
<td>5E/ M2</td>
<td>W, B</td>
<td>Permit horses. Upgrade to two-wheel drive standard. Seasonal road closure. Water access for fire management. Provides park access and management.</td>
</tr>
<tr>
<td>Victoria Gully Road</td>
<td>5D/ M2</td>
<td>5D/ M2</td>
<td>W, B</td>
<td>Permit horses. Seasonal road closure. Maintain dry-weather access. Provides park access and management, single-laned.</td>
</tr>
<tr>
<td>Wagon Track</td>
<td>5E/MV</td>
<td>5E/MV</td>
<td>W, B</td>
<td>Permit horses. Management vehicles only, part of Wagon Loop Walk.</td>
</tr>
<tr>
<td>Wattle Flat Road</td>
<td>5E/ M2</td>
<td>5E/ M2</td>
<td>All</td>
<td>From Centre Road to Thwaites Road is within the park. Provides park access and management.</td>
</tr>
</tbody>
</table>

Notes
1. Parts of these roads are road reserve and not part of the park area. Management is negotiated under agreement with the relevant municipal shire.
2. Seasonal road closure commencing after Queen’s Birthday weekend in June and continuing until the last weekend in October.
3. Formerly Douglas Track.

KEY:
Category:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5C</td>
<td>Minor Road — single lane unsealed, formed road usually lightly gravelled.</td>
</tr>
<tr>
<td>5D</td>
<td>Access Track — single lane, dry weather formed (from natural materials).</td>
</tr>
<tr>
<td>5E</td>
<td>Rough Track — single lane, unformed earth track at or near the natural surface.</td>
</tr>
</tbody>
</table>

Vehicle Use:

<table>
<thead>
<tr>
<th>Vehicle Use</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2</td>
<td>2WD and 4WD</td>
</tr>
<tr>
<td>M4</td>
<td>4WD only</td>
</tr>
<tr>
<td>MV</td>
<td>Management vehicles only</td>
</tr>
</tbody>
</table>

Other uses:

<table>
<thead>
<tr>
<th>Other uses</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Walkers, bicycles, horses</td>
</tr>
<tr>
<td>W</td>
<td>Walkers</td>
</tr>
<tr>
<td>B</td>
<td>Bicycles</td>
</tr>
<tr>
<td>H</td>
<td>Horses</td>
</tr>
</tbody>
</table>
Facilities for day visits and camping are provided at four sites in the park (table 4). A new 80 Acres Camping Area is planned in the east of the park to cater for self-sufficient campers and groups of up to about 40 people. There is an apiary site near the planned area and the remains of a hut. New facilities will be located away from these features and apiary activities interpreted at the site recognising the ongoing relationship apiarists have with the park (section 7.2).

Teddington Camping Area and Teddington Hut have defined day visit and camping areas with a range of facilities including toilets. The other camping sites have limited facilities.

The arrangement of the day visit and camping areas at Teddington Camping Area needs to be redefined to ensure the protection of cultural heritage sites, and a range of new and upgraded facilities are planned (table 4).

The area around the Upper Teddington Reservoir has been depleted of woody debris on the ground through firewood collection over many years. Visitors to this site must bring firewood with them from outside the park if they plan to use solid fuel BBQ or fireplace facilities. To avoid depleting woody debris and the natural values at other sites, visitors to Teddington Hut, West of England Firetower and the new 80 Acres Camping Area will also be required to bring their own firewood from outside the park.

The water supplied from the tanks and taps at the Teddington Camping Area and Teddington Hut is not potable and is not for human consumption. Visitors need to bring their own drinking water.

The remoteness of the park presents opportunities for solitude and use by groups seeking self-sufficient camping or hiking experiences without facilities (section 6.5).

Aims
- Establish and maintain visitor facilities that enhance visitor enjoyment and are consistent with the protection of park values.
- Maintain Teddington Camping Area and Teddington Hut as the main visitor sites in the park by providing a medium level of service and maintain basic services at the other sites.

Management strategies
- Provide and maintain visitor facilities in accordance with table 4 and figure 3.
- Upgrade visitor facilities at the Teddington Camping Area, in particular redefine the camping and day visitor areas, upgrade toilets for disabled use, upgrade barbecue facilities and provide communal fireplaces (table 4).
- Upgrade the fireplace at the Teddington Hut visitor site and provide historical information about the hut and surrounding park areas.
- Permit solid fuel campfires in provided fireplaces only.
- Develop the 80 Acres Camping Area for camping and day visitor use, with a capacity of about 40 visitors as detailed in table 4. Define the camping, day visit and parking areas and install directional and interpretative signage. Consult relevant apiarists about the location and the interpretation of apiary activities (sections 6.1 and 7.2).
- Remove all rubbish bins from the park and encourage visitors to take their rubbish home (section 6.1).
- Encourage continued community participation in vegetation and restoration projects in the park (section 8.2).
- Do not permit the collection of firewood in the park, and encourage visitors to use non-solid fuel stoves or bring their own firewood.
- Provide information to park visitors about the need to bring their own drinking water and firewood for use in the park.

6.4 Bushwalking
Bushwalking in the park is the most popular recreational activity undertaken by members of the regional community.

At present there are no dedicated walking trails in the park, although the road network offers extensive opportunities for walkers. Visitors use an unformed walking track around the Upper Teddington Reservoir.
### TABLE 4 CURRENT AND PLANNED RECREATION FACILITIES

<table>
<thead>
<tr>
<th>SITE</th>
<th>CURRENT /PLANNED LOS</th>
<th>CAMPING</th>
<th>TOILET FOR DISABLED</th>
<th>PICNIC TABLE</th>
<th>BBQs</th>
<th>FIRE PLACE</th>
<th>PARK INFO</th>
<th>SCENIC VIEWING</th>
<th>CAR PARK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAMP SITES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teddington Camping Area</td>
<td>M/M</td>
<td>E</td>
<td>E</td>
<td>U</td>
<td>E</td>
<td>U</td>
<td>E</td>
<td>–</td>
<td>E</td>
</tr>
<tr>
<td>Teddington Hut</td>
<td>M/M</td>
<td>E</td>
<td>–</td>
<td>E</td>
<td>–</td>
<td>U</td>
<td>P</td>
<td>–</td>
<td>U</td>
</tr>
<tr>
<td>80 Acres Camping Area</td>
<td>–/B</td>
<td>P</td>
<td>–</td>
<td>–</td>
<td>P</td>
<td>–</td>
<td>P</td>
<td>–</td>
<td>P</td>
</tr>
<tr>
<td><strong>DAY VISIT</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rostron Picnic Area</td>
<td>B/B</td>
<td>N/A</td>
<td>–</td>
<td>–</td>
<td>E</td>
<td>R</td>
<td>R</td>
<td>–</td>
<td>E</td>
</tr>
<tr>
<td>West of England Firetower</td>
<td>B/B</td>
<td>N/A</td>
<td>–</td>
<td>–</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>–</td>
<td>E</td>
</tr>
</tbody>
</table>

**KEY:**

- **LOS** Levels of service:
  - **M** Mid — moderate levels of visitor facilities and amenities provided
  - **B** Basic — limited visitor facilities and amenities provided

- **Facilities:**
  - **E** existing facility
  - **U** upgrade existing facility
  - **P** provide facility
  - **R** remove facility
  - **–** no facility
  - **N/A** not applicable

There is interest within the community for increased availability of information about walking trails in the park, particularly for short day walks and to a lesser extent for longer walks extending through the park. A range of walks beginning from the Teddington Camping Area are planned, accessing areas of the Strathfillan valley using a combination of roads, walking tracks and management vehicle tracks (table 5).

The planned walking route network would not increase fragmentation as it does not require the creation of new tracks.

There are no formal long-distance walking tracks in the park, but experienced bushwalkers that have an advanced outdoor knowledge and navigational skills are encouraged to undertake longer walks in the park.

*Bushwalking Victoria Tread Softly* brochure outlines minimal impact practices for bushwalkers (FVWC 2003).

**Aim**

- Provide a range of sustainable walking opportunities in the park, particularly short walks near the Teddington Camping Area.

**Management strategies**

- *Progressively establish and maintain the walking routes detailed in table 5.*
### TABLE 5 MANAGEMENT OF WALKING ROUTES

<table>
<thead>
<tr>
<th>Route</th>
<th>Length (km)</th>
<th>Current Grade</th>
<th>Planned Grade</th>
<th>Other Uses Current</th>
<th>Other Uses Planned</th>
<th>Actions/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Teddington Reservoir Walk</td>
<td>2.5</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td>Upgrade. Requires directional and interpretive signage.</td>
</tr>
<tr>
<td>Kara Kara walk</td>
<td>14.0 return</td>
<td>3</td>
<td>3</td>
<td>B</td>
<td>B</td>
<td>From Teddington Camping Area to Mt Separation Road mostly following Strathfillan Creek. Uses Teddington Road and Chimney Track (table 3). Return route follows Mt Separation Road and Blue Gum Track to Teddington Hut. Requires directional signage and interpretive materials.</td>
</tr>
<tr>
<td>Teddington Hut walk</td>
<td>2.6 return</td>
<td>2</td>
<td>2</td>
<td>B</td>
<td>B</td>
<td>From Teddington Camping Area to Teddington Hut using Teddington Road (table 4). Requires directional signage.</td>
</tr>
<tr>
<td>Dodgers loop walk</td>
<td>3.5</td>
<td>-</td>
<td>3</td>
<td>H</td>
<td></td>
<td>Loop using Dodgers Track (MVO) and sections of Teddington Road and Chimney Track (table 3). Requires directional and interpretive signage.</td>
</tr>
<tr>
<td>Wagon loop walk</td>
<td>3.8</td>
<td>-</td>
<td>3</td>
<td>H</td>
<td></td>
<td>Loop using Wagon Track (MVO) and sections of Chimney Track and Mt Separation Road (table 3). Requires directional and interpretive signage.</td>
</tr>
</tbody>
</table>

**KEY:**

**Function:** Australian Standards Classification for walking tracks (AS 2156.1—2001)

- Grade 2 For a large number of visitors to walk easily in a natural environment with frequent encounters and a moderate to high level of interpretation and facilities.
- Grade 3 For visitors to walk in slightly disturbed natural environments, requiring moderate levels of fitness with occasional encounters and perhaps signage—interpretation and facilities are not common.
- Grade 4 For visitors to explore and discover relatively undisturbed natural environments along defined and distinct tracks with few encounters and no interpretive signage.

**Other Use:**
- B Cycling and mountain bike riding.
- H Horses.
• Formalise the walking routes around the Upper Teddington Reservoir and develop interpretive material in partnership with interested community groups (sections 6.1 and 8.2).

• Monitor the impact of bushwalking on park values and implement protection measures as appropriate.

• Provide information to local councils, tourism organisations and regional health promotion groups on the bushwalking opportunities offered in the park (section 6.1).

• Provide information to visitors on minimising bushwalking impacts and reducing visitor risks by keeping to designated walking routes (section 6.1).

• Encourage long-distance hikers to liaise with Parks Victoria in planning their trip to ensure park values are protected and visitor safety is adequately considered.

• Establish directional signage on new walking routes (table 5) and promote the use of other vehicular tracks for extended walks.

• Promote Bushwalking Victoria’s Tread Softly minimal impact and bushwalking guidelines.

6.5 Camping
Camping is available at defined sites at the Teddington Camping Area and Teddington Hut. The number of campers at these sites has been high in the past, particularly over the autumn, spring and Easter periods when the reservoir held water.

An additional camping site will be established in the east of the park. This new 80 Acres Camping Area will cater for self-sufficient campers in groups of up to 40 people.

In addition, dispersed vehicle-based camping is permitted in areas of the park north of Stuart Mill Gap Road, away from day visitor areas.

Dispersed walk-in camping (or hiking) is planned for the whole park except for the Mount Separation Reference Area, Land Use Designated – Special Water Supply Catchment Area and within 500 m of designated visitor sites (figure 3).

Gas and liquid fuel stoves only are to be used by visitors undertaking dispersed vehicle-based camping and dispersed walk-in camping. Solid fuel campfires are only permitted in the fireplaces provided (section 6.3 and table 4).

Aim
• Provide sustainable camping opportunities while minimising impacts on the park and other visitors.

Management strategies
• Maintain and upgrade camping sites and facilities as detailed in table 4.

• Permit vehicle-based camping at defined sites at Teddington Camping Area, Teddington Hut and 80 Acres Camping Area.

• Permit dispersed vehicle-based camping and the use of gas or liquid fuel stoves in the Conservation and Recreation Zone to the north of Stuart Mill Gap Road, except within 500 metres of the Rostron Picnic Area and West of England Firetower visitor sites.

• Permit dispersed walk-in camping and the use of gas or liquid fuel stoves throughout the park, except within the Mount Separation Reference Area and Land Use Designation – Declared Water Supply Catchment and within 500 metres of visitor sites (figure 3).

6.6 Cycling and mountain bike riding
The roads (although unsealed) and terrain in the park are suited to both cycling and mountain bike riding. The lower areas in the north and east of the park and the area immediately around Upper Teddington Reservoir are most suited to cycling. The rougher roads and steep terrain elsewhere in the park are more suited to mountain bike riding. A mountain bike touring route follows Centre Road along a north–south ridge of the park, with other shorter rides off this route.

The routes are promoted through the St Arnaud Range Bike Tracks tourist map produced by the St Arnaud Rotary Club (St Arnaud Rotary 2008) (section 8.2).

The Outdoor Recreation Centre’s Mountain Biking Adventure Activity Standards (ORC 2005a) help riders protect park values and
avoid conflict with other visitors. They can be accessed on the Parks Victoria website (www.parkweb.vic.gov.au).

The St Arnaud Rotary Club and other groups conduct organised bicycle or mountain bike riding events in the park. Permits with conditions to minimise impacts on the park are required (section 7.3).

Impacts to park values and other visitor activities from cycling and mountain bike riding can be minimised if cyclists stay on designated roads and tracks (table 3).

**Aim**
- Provide for a range of sustainable cycling and mountain biking experiences, while minimising impacts on park values and other visitors.

**Management strategies**
- Provide opportunities for cycling and mountain bike riding on roads and tracks as shown in table 3 and figure 3.
- Promote the mountain bike touring routes as detailed in the ‘St Arnaud Range Bike Tracks’ map, in partnership with the St Arnaud Rotary Club.
- Promote the ‘Mountain Biking Code’ (DSE 2003d), integrate minimal-impact messages into park information and interpretation, and encourage bike riders to adhere to the code (section 6.1).
- Educate and encourage cyclists to undertake legal, safe and sustainable cycling through signage and provision of appropriate information such as the Mountain Biking Adventure Activity Standards (ORC 2005a).

### 6.7 Horse riding

In recent years there has been a low level of horse riding activity undertaken in the park, mostly by local people.

The management plan for the former Kara Kara State Park (Parks Victoria 1997) allowed for horse riding on Centre Road and Mt Separation Road. However, several other recreational activities, including four wheel driving, trial bike riding and mountain bike riding, also focus on these roads. For rider safety and a better experience, horse riders may prefer to use other routes.

Horse riding is permitted during daylight hours on all roads in the park, except within the Land Use Designation – Special Water Supply Catchment areas (section 3.3) and some dead end roads (table 3).

The *Horse Riding Code* (Parks Victoria 2006c) and the Outdoor Recreation Centre’s Horse Trail Riding Adventure Activity Standards (ORC 2005b) provide guidelines to help riders protect the park’s values and avoid conflict with other visitors.

Small groups of riders do not require a permit for riding in the park. A permit is required for horse riding events or functions in the park (section 7.3).

Horse riding is generally not permitted in Nature Conservation Reserves. However, access through the adjacent Nature Conservation Reserves on designated tracks may be permitted to enable horse riders to access the park from Moonambel and Stuart Mill (DSE 2003a).

**Aim**
- Provide sustainable opportunities for horse riding, while minimising impacts on park values and conflicts with the activities of other park users.

**Management strategies**
- Permit horse riding during daylight hours on all roads designated for this purpose in table 3, but do not allow camping with horses in the park.
- Investigate allowing horse riders to access the park from Moonambel and Stuart Mill using Moonambel Track in Redbank Nature Conservation Reserve and Thwaites Road in Stuart Mill Nature Conservation Reserve.
- Encourage horse riders to adhere to the Horse Riding Code (Parks Victoria 2006c) and the Horse Trail Riding Adventure Activity Standard (ORC 2005b).

### 6.8 Orienteering and rogaining

In recent years there have been a number of orienteering events in the park, mostly organised by the Bendigo Orienteer’s Club. In 2006 the park was the venue for the Australian Rogaining Championships, which involved up to 500 people including participants,
organisers and spectators. Rogaining events in the park are generally organised by the Victorian Rogaining Association.

Orienteering and rogaining events are generally permitted throughout most of the park, except within the Mount Separation Reference Area. During spring, events may be directed away from the Special Protection Area – Fauna Refuge areas in the park to minimise disturbance.

Event organisers require a permit from Parks Victoria to host an event in the park (section 7.3). Parks Victoria and event organisers work cooperatively to ensure that events are held in areas that pose the least threat to park values and minimise interference with the activities of other park visitors.

**Aim**

- Permit orienteering and rogaining while minimising the impact on park values.

**Management strategies**

- Allow orienteering and rogaining in the Conservation and Recreation Zone and, subject to restrictions during spring, in the Special Protection Area – Fauna Refuge. Include permit conditions to protect park values and the amenity of other visitors.

- Allow orienteering and rogaining events in the Conservation Zone subject to permit conditions that specify how impacts to the natural and cultural values of the area will be avoided by participants.

- Work with event organisers, particularly the Bendigo Orienteer’s Club and the Victorian Rogaining Association, to identify and protect sensitive values or features in event areas.

**6.9 Prospecting**

Prospecting activities maintain links to the park’s association with the history of gold discovery (section 5.2).

In Victoria, searching for minerals is primarily controlled under the provisions of the Mineral Resources (Sustainable Development) Act 1990 (Vic.), which requires that prospectors hold a Miner’s Right or Tourist Fossicking Authority. Prospecting under a right or authority is conditional on the protection of vegetation and the repair of any damage to the land, including the backfilling of any holes on the same day, and is limited to the use of non-mechanical hand tools. Prospectors generally use a metal detector, shovel, mattock or similar implement, or a pan.

Treasure hunting — searching for archaeological relics such as coins and bottles — is not permitted in the park. The disturbance of archaeological relics and sites without the approval of Heritage Victoria is an offence under the Heritage Act. The disturbance or collection of archaeological relics must also be reported to Heritage Victoria.

Prospecting is permitted in much of the park, except for the Mount Separation Reference Area and the Conservation Zone, which includes the Teddington and Redbank Reservoir catchments. Prospecting is also excluded from a section in the north of the park to enhance the protection of the nationally endangered Lowly Greenhood (section 4.4 and appendix 4).

The ECC recommended that prospecting be permitted in designated areas located away from significant values, notably small ground dwelling animals and plants which may be damaged as a result of prospecting, and that areas be developed as part of the management plan process in consultation with the Prospectors and Miners Association of Victoria (PMAV) (ECC 2001) (section 2.5). In addition the ECC recommended that protection of the water and catchments of the Redbank and Teddington Reservoirs be maintained (ECC 2001).

This plan redefines the area available for prospecting (table 1 and figure 2), with prospecting no longer permitted in the Conservation Zone, which includes steep areas of the park where prospecting activities would contribute to soil erosion. These steeper areas include the Teddington and Redbank catchments. This represents a reduction of the area available for prospecting from 72% (former prospecting area) to 51% (current prospecting area) of the park.

A Prospecting Guide has been collaboratively developed by Parks Victoria, the PMAV, the Victorian Gem Clubs Association and the Victorian Government (DPI 2003a). The guide provides information about prospecting, including PMAV’s Code of Conduct for this
activity. Information networks used by prospectors include meetings and newsletters of the PMAV and other prospecting clubs, as well as equipment suppliers and websites. Information about prospecting and park values can be made available to prospectors through these networks (section 6.1).

**Aim**

- Provide sustainable opportunities for prospecting in the park while minimising impacts on significant values and other visitors.

**Management strategies**

- Permit prospecting in the park:
  - in areas covered by the Land Use Designation – Prospecting overlay (table 1 and figure 2)
  - subject to prospectors holding a Miners Right or operating under a Tourist Fossicking Authority.
- Develop and implement solutions to address existing or potential adverse effects or impacts of prospecting identified through monitoring, in consultation with the PMAV and other relevant stakeholder groups.
- Review the area available for prospecting if impacts become unacceptable or there is new information about vulnerable natural or cultural values.
- Make information about prospecting in the park readily available to the prospecting community, including:
  - the areas of the park where prospecting is permitted
  - values identified within the Land Use Designation – Prospecting overlay that are sensitive to disturbance (section 6.1).

**6.10 Tourism services**

There are currently three licensed tourism operators (LTOs) registered for the park, all providing for prospecting activities. Future opportunities include nature tourism and Indigenous tourism.

Parks Victoria’s LTOs play a key role in nature-based tourism in Victoria by offering guided park tours and supported recreation activities, and information that promotes park values and appropriate use.

**Aim**

- Provide opportunities for and encourage the provision of external tourism services while minimising impacts on natural and cultural values of the park.

**Management strategies**

- Ensure that all tourism operators using the park are licensed, and promote awareness of Adventure Activity Standards, and Minimal Impact Guidelines.
- Continue to work with LTOs and the tourism industry to assist with the delivery of appropriate park information, including hosting park familiarisation visits as required.
- Provide opportunities and encourage Traditional Owners to facilitate Aboriginal cultural heritage tours and, if appropriate, interpretation of Aboriginal places.
- Monitor the effectiveness of tourism services in contributing to the objects of the National Parks Act.

**6.11 Public safety**

Parks Victoria is not the lead agency for most emergency response situations, but provides a support role for emergency incidents where required.

Relevant agencies respond to incidents within the park in accordance with the appropriate municipal emergency management plans (Pyrenees Shire Council 1996, Northern Grampians Shire Council 2005) and the Emergency Management Act 1986 (Vic.). Parks Victoria’s response to emergency incidents during normal operating activities within the park is guided by the Emergency Management Plan – Western Goldfields Parks and Reserves (Parks Victoria 2006d).

Visitors to the park need to be aware of potential hazards, including the remoteness and inaccessibility of some areas, bushfire, changing weather conditions, mine shafts, and rocky or unstable terrain.
Parks Victoria implements a dam safety project for Upper Teddington Reservoir that includes monthly and annual assessments of the dam wall (SMEC 2006). Further risk assessments will be required at this site as part of investigations into management options for the Upper Teddington Reservoir in partnership with the Stuart Mill Water Supply Group (sections 4.3 and 7.1).

Public information and education programs are one of the most effective ways to promote visitor safety. Safety messages are presented to visitors through signs, Park Notes and ranger patrols (section 6.1).

**Aims**

- Promote visitor safety and awareness of safety issues and risks within the park associated with access and use.
- Promote and observe safe practices, and cooperate with emergency services.

**Management strategies**

- *Increase visitors’ awareness of safety issues and potential hazards in the park through the use of Park Notes, Parks Victoria’s website and information signs.*
- *Ensure that park staff and licensed tour operators are aware of the Emergency Management Plan for Western Goldfields Parks and Reserves (Parks Victoria 2006d).*
- *Cooperate with and support responsible agencies in emergency response and ensure that Parks Victoria’s staff are adequately trained in emergency procedures.*
- *Liaise with Northern Grampians and Pyrenees Shires to ensure that the Municipal Emergency Management Plans make adequate provision for likely incidents in the park.*
- *Audit identified risks and hazards within the park on a regular basis.*
7 STRATEGIES FOR AUTHORISED AND ADJACENT USES

7.1 Infrastructure

Under the provisions of the National Parks Act, an authorisation from the Secretary to DEPI is required for the installation and operation of public utilities in the park. Authorisations include conditions to minimise impacts on the park and visitors.

The West of England Firetower and associated telecommunications infrastructure is enclosed within a fenced area of less than one hectare that is not open to the public. The firetower is classed as a primary tower and is operated by DEPI throughout most of the declared fire danger period. Telecommunications infrastructure attached to the tower is operated by DEPI and the CFA.

An above-ground pipe passes through the park to the Redbank Reservoir and is managed by Central Highlands Water (section 4.3).

The Upper Teddington Reservoir is part of the Teddington Reservoir SWSCA (section 4.3). Management of the Upper Teddington Reservoir dam wall is a joint responsibility of Parks Victoria and DEPI. No formal agreement exists between Parks Victoria, DEPI and the Stuart Mill Water Supply Group in relation to water supply and the movement of water from the Upper to Lower Teddington Reservoirs (section 4.3).

Aim

- Manage authorised uses in accordance with the National Parks Act and other legislation as appropriate, and minimise their impact on park values.

Management strategies

- Develop an agreement between Parks Victoria, DEPI and the Stuart Mill Water Supply Group to manage water supply issues in the Upper Teddington Reservoir (section 4.3).
- Develop protocols and appropriate authorisations for the use and maintenance of the West of England Firetower.
- Review other uses of the park to identify those that do not conform with the objects of the National Parks Act. Allow uses to continue only in accordance with authorisations that are consistent with legislation, and include conditions that effectively minimise the impacts of uses on the park.
- Seek permission from the Secretary to DEPI for Central Highlands Water to operate the Redbank Reservoir pipe and other existing public authority installations and services, including conditions to ensure that construction, operation and maintenance works are consistent with the protection of the park’s natural and cultural values and the amenity of visitors.

7.2 Private occupancies

The area is a valuable site for honey production and there is evidence of the park’s long association with apiculture with some huts and parts of former apiary infrastructure remaining such as a hut near the planned 80 Acre Camping Area (section 6.3).

At present there are 20 apiary sites in the park for which apiary permits can be issued under section 21(1)(b) of the National Parks Act for a period not exceeding six months. One of the sites will need to be relocated because it is within the buffer of the Mount Separation Reference Area. The other apiary sites are unlikely to cause conflict with the Reference Area or visitors. The establishment of the 80 Acres Camping Area will consider the location of the nearby apiary site.

Aim

- Manage authorised occupancies and activities in accordance with the National Parks Act, and minimise their impacts on park values.

Management strategies

- Continue to allow access to up to 20 existing apiculture sites outside the Mount Separation Reference Area and the Reference Area buffer in accordance with the government-accepted ECC recommendations and Parks Victoria’s operational policies and subject to the outcome of research into the ecological impacts of the industry on park values and management requirements.
• Relocate the apiary site within the buffer of the Mount Separation Reference Area to another area of park or public land through negotiation with the licence holder.

• Discuss the location and establishment of the 80 Acres Camping Area with the licensee to avoid impacts from visitors on the use of nearby apiary sites (section 6.3).

7.3 Occasional uses

All research and monitoring planned in a park by external organisations or individuals, requires a research permit under the National Parks Act.

Parks Victoria recognises the significant role that the filming and photography industry plays in the social and economic well-being of the community, and in providing for these activities seeks to ensure protection of the natural and cultural values of the planning area. This is achieved through a permit system for all filming and photography conducted as part of a trade or a business. Amateur photographers or people taking film or video for personal or hobby interest do not require a permit.

Protected areas are generally avoided as locations for Defence Force training exercises, although they occasionally host search and rescue, field navigation and incident response activities. Adventure training and field navigation exercises by Defence Force units may be undertaken, subject to a permit outlining conditions to ensure minimal impacts on the park.

Occasionally requests are received to hold events and functions in the park such as organised group bike rides by local clubs. Potential impacts on the breeding success of threatened species are considered in granting permits for these activities (section 4.5).

Aim

• Manage authorised occasional uses in accordance with the National Parks Act, and minimise their impacts on park values.

Management strategies

• Review all uses of the park that do not conform with the objects of the National Parks Act. Allow uses to continue only in accordance with authorisations that are consistent with legislation, and include conditions that effectively minimise the impacts of uses on the park.

• Monitor authorised activities to ensure conditions of authorisations are met. Assess the effectiveness of conditions of authorisations in protecting the park and seek review of authorisations if necessary to arrest impacts.

• Manage commercial filming and photography in accordance with Parks Victoria’s operational policies.

• Permit Defence Force training or field navigation exercises in the park in accordance with Parks Victoria’s operational policies and relevant permit conditions.

• Permit events and functions that:
  • have acceptable environmental impacts
  • do not damage cultural values of the park
  • do not unduly disturb or disadvantage other visitors
  • do not unduly increase liability risk exposure
  • can be appropriately managed with available resources.

• Ensure relevant Indigenous communities are consulted and involved in the planning and participation of relevant events.

• Favour events and functions that provide community benefits or complement park values.

7.4 Park boundaries and adjacent uses

The park is large, relatively unfragmented, and well connected to other large areas of native vegetation. Almost 20% of land adjacent to the park boundary has forested areas that significantly complement park values (section 2.1 and figure 3). Most of the park boundary (80%) is adjacent to freehold land that has been largely cleared for dryland grazing and cropping. Some small inliers within the park have also been cleared (figure 3).

Some adjacent land retains important remnant vegetation, and the conservation and
restoration of these remnants is becoming increasingly important. In recent years there has been an increase in ownership of small acreages or ‘bush blocks’ neighbouring the park. A number of these owners live elsewhere and visit their blocks weekly or sporadically often increasing the potential for invasive pests and other threats.

Parks Victoria, other agencies and neighbouring land managers have a range of common land management issues. The North Central and Wimmera Catchment Management Authorities coordinate conservation projects on neighbouring freehold land (section 8.3) that could enhance conservation outcomes within the park. There are mutual benefits in adopting cooperative approaches with groups such as the Buloke-Northern Grampians LandCare Network.

The Good Neighbour program provides funding to neighbouring landholders for cooperative pest and plant management projects that are mutually beneficial across land tenures. Parks Victoria notifies the relevant neighbours when undertaking pest animal control works within the park.

DEPI and Parks Victoria coordinate their management activities along the State forest – national park boundary, including planning and management for pest plants and animals, fires and roads.

Land use and development on land surrounding the park is regulated by the planning schemes administered by the Northern Grampians and Pyrenees Shire Councils. Land surrounding the park is predominantly zoned as Farming Zone, with some areas of Rural Conservation Zone and Rural Living Zone. A number of overlays apply to land adjoining the park, including a Bushfire Management Overlay that covers the private land inliers.

**Aims**
- Cooperate with adjoining land managers and local municipalities to resolve boundary and adjacent land use issues.
- Increase awareness and support for the park and maintain good relations with neighbours.

**Management strategies**
- Encourage the application of the Good Neighbour program to manage issues on or near the boundary of the park (sections 4.4 and 4.5).
- Encourage cooperative approaches with neighbouring land managers including the Buloke-Northern Grampians LandCare Network, and participation in schemes such as Land for Wildlife and LandCare.
- Cooperate with adjoining land managers in coordinating fire and pest control programs and other works, including road maintenance where appropriate.
- Encourage sound conservation and land management practices on private land adjoining the park, in collaboration with the CMAs (section 8.3).
- Liaise with the local community, in collaboration with the CMAs and local government, to enhance community understanding of responsible pet ownership, planting of indigenous vegetation, and problems associated with environmental weeds (sections 6.1 and 8.3).
- Liaise with Northern Grampians and Pyrenees Shires regarding administration of the planning scheme, including input into adjacent or nearby developments that may impact on park values.
- Liaise with Northern Grampians and Pyrenees Shires and DEPI in regard to the implementation of Integrated Fire Management Planning.
8 STRATEGIES FOR COMMUNITY AWARENESS AND INVOLVEMENT

8.1 Community awareness
Raising the community’s awareness of the park’s values is an essential step to develop its sense of custodianship for the park and engagement in the area’s management. The community is more likely to develop a sense of custodianship for the park if its views and values are respected and park-related social networks are encouraged and supported. A strong connection with the park among visitors and in the local and wider community will assist in broader public education, raising awareness and reaching others in the community.

Involvement with existing community groups such as the St Arnaud Field Naturalists Club and the Australian Native Orchid Society provide an opportunity to increase awareness in the wider community about the park and its values.

Education and interpretation programs (section 6.1) play an important role in raising the awareness of the park in the wider community. Parks Victoria aims to communicate the benefits of a healthy parks system and its contribution to the health of individuals and society through the ‘Healthy Parks Healthy People’ program.

Bushwalking is a common recreational activity undertaken by the regional community. There are opportunities to distribute information on walks offered in the park through regional health services including East Wimmera Health Service, St Arnaud Community Health and Loddon Mallee Women’s Health (sections 6.1 and 6.4).

Aim
- Increase the community’s awareness and understanding of the park’s values and management activities.

Management strategies
- Promote opportunities for community members to better understand park management objectives through taking shared responsibility and becoming directly involved in the park’s management, particularly through existing groups and networks (section 6.1).
- Encourage people from the wider community to become interested in the park and its management through media articles, advertising of park-related activities and at relevant community events.
- Promote the benefits of the park to local and regional communities through regional health services.
- Increase public awareness, understanding and interest in key park management activities, including fire management and fuel reduction burning, pest plant and animal control, ecological management and the conservation of threatened species at relevant community events and through local media (section 8.2).
- Communicate to the broader community the work of Friends, volunteers and community groups.

8.2 Community participation
The participation of the community can enrich and strengthen park management and is pivotal in effective long-term planning, use and protection of the park’s values.

The Traditional Owners have considerable interest in and aspirations for the park as part of Country. They are an important potential source of traditional knowledge about the area that has yet to be documented. A strong working relationship with the Traditional Owners will be essential to reflecting their views in the park’s planning and management, and reconciliation of their interests and aspirations with those of other members of the community.

Establishing an annual community forum as a continuation of forums initiated in the plan development will further enable the wider community to have an input into park management and create awareness and understanding of park issues.
Friends groups, volunteers and community groups make valuable contributions to park management projects. At present there is no Friends group for the park.

The Dja Dja Wurrung community conducted an Indigenous cultural heritage survey. The St Arnaud Field Naturalists Club and the Australian Native Orchid Society have conducted surveys and helped to raise awareness of park values. The Stuart Mill Reserves Committee developed an information board in the Stuart Mill township to promote the park. St Arnaud Rotary Club developed a regional mountain bike touring map and installed complementary signage in the park.

Such groups bring diverse and valuable information, knowledge, skills and experience to the park that may otherwise not be available to the park’s managers. Volunteers also bring great enthusiasm and add valuable resources to assist with the care of the park.

The interests of community groups in the park often overlap and may not be complementary. There can be considerable mutual benefits where such groups work together and with Parks Victoria to achieve common goals.

Opportunities exist for tertiary students to assist park managers with park-related projects and research (sections 4.4, 4.5, 4.7 and 6.1).

Developing partnership approaches to the impacts arising from fragmentation, with the community and other land management agencies will benefit the park, particularly revegetation programs that address connectivity within the landscape and landscape scale threat abatement from weeds and feral pests (sections 4.3, 4.4, 7.4 and 8.3).

Funding is available for community projects that will benefit the park, particularly projects aimed at heritage, environmental conservation or community capacity building, through Parks Victoria, CMA’s, and local, state and federal government initiatives (section 8.3).

Aims

- Support and encourage Friends groups, community groups and volunteers to actively assist in the park’s management by participating and contributing their knowledge and skills.
- Build a sense of shared ownership and custodianship for the park in community groups and individuals through participation in the planning and delivery of management activities.

Management strategies

- Maintain relationships with the Traditional Owners. In particular seek to further develop a working partnership with the Traditional Owners in managing the park.
- Maintain and strengthen relationships with volunteers and other community groups that use the park or have a particular interest in it. Encourage and support such groups to work together and with Parks Victoria and the Traditional Owners to achieve shared goals for the park.
- Engage interested community members in annual community forums or community days to enable them to have an input into resolving park management issues, setting priorities and implementing the plan.
- Promote opportunities for community groups to assist Parks Victoria and the Traditional Owners in the park’s management.
- Promote the activities of volunteer groups and support them in assisting the park’s management, and support the establishment of a friends group for the park.
- Encourage community group and student involvement in monitoring and recording programs using standard methods, particularly for threatened vegetation, fauna and pest plants and animals (sections 4.4, 4.5 and 4.7).
- Promote opportunities among interested community groups and Parks Victoria’s staff for sharing knowledge and increasing understanding and appreciation of each other’s aspirations and goals for the park.
- Encourage and support groups that use or have an interest in the park to work together to pursue sources of funding, including Parks Victoria grants, for projects in the park. Encourage joint grant applications by other groups as appropriate (section 8.3).
• Provide opportunities for, and encourage and support, tertiary students to undertake volunteer work experience and research that assists park management and is consistent with the plan (sections 4.4, 4.5, 4.7 and 6.1).

8.3 Agency partnerships

Although Parks Victoria is responsible for overall management of the park, other agencies are responsible for planning, managing or regulating certain activities in the park.

All activities relating to the park that are carried out by Parks Victoria or other agencies need to accord with all legislation and government policy and, as far as practicable, be consistent with agencies’ policies and guidelines. To ensure this occurs, park staff must work closely with staff of relevant agencies and collaborate in implementing activities where appropriate.

The Department of Sustainability and Environment establishes parks and provides strategic direction and policy advice for the management of parks, including flora and fauna values and threatening processes and is responsible for providing direction on fire management on protected public land.

North Central and Wimmera Catchment Management Authorities primary function is to deliver their Regional Catchment Strategy as well as maintain the regional role as caretaker of river health and manager of environmental water (section 4.3).

The Country Fire Authority (CFA) is a volunteer-based community service that responds to a variety of fire and emergency incidents, primarily on private land.

Central Highlands Water is responsible for providing domestic water to customers at Redbank. The catchment for this reservoir and a water supply pipe are within the park (sections 4.3 and 7.1). The Stuart Mill Water Supply Group is responsible for providing domestic water to customers in Stuart Mill. The majority of its catchment area and the Upper Teddington Reservoir are within the park (section 4.3).

The Northern Grampians and Pyrenees Shire Councils administer the planning schemes for the park and adjacent land. This includes assessing developments that could have an impact on park values. Parks Victoria provides input into planning applications to ensure that park values are protected.

Through Aboriginal Affairs Victoria (AAV), the Department of Planning and Community Development (DPCD) has responsibility for administering legislation protecting cultural heritage (section 5.1). AAV and the Loddon Mallee Cultural Heritage Unit advise Parks Victoria on Aboriginal cultural heritage matters.

Heritage Victoria is the central government agency in DPCD which provides information and advice about places listed on the Victorian Heritage Register and Archaeological Inventory. It supports the Heritage Council through research, recommends additions to the Register and issues permits for alterations to heritage places.

Tourism Victoria is the state government authority responsible for developing and marketing Victoria to Australian and international travellers.

Victorian agencies work cooperatively with the Commonwealth Department of Climate Change and Energy Efficiency and the Department of Sustainability, Environment, Water, Populations and Communities on the management of regional ecosystem conservation issues.

Aim
• Enhance park management by collaborating with other agencies to ensure that they give appropriate consideration to park values in planning and implementing activities that relate to the park.

Management strategies
• Work collaboratively with all agencies to implement the plan vision and direction. In particular work with:
  • DEPI regarding future planning and management, including protection of flora and fauna from potentially threatening processes and fire management
  • North Central and Wimmera CMAs to reduce the impacts of land use and management on the park and the development of appropriate actions in the Regional Catchment Strategies
Strategies for community awareness and involvement

- CFA and DEPI to ensure safety and protection of park values in managing fire within and around the park
- AAV and the Loddon Mallee Cultural Heritage Unit on issues relating to Aboriginal cultural heritage, and to ensure compliance with relevant legislation
- Heritage Victoria on heritage management, and compliance with the Heritage Act
- Central Highlands Water and Stuart Mill Water Supply Group to ensure that the management of water infrastructure in the park is consistent with the protection of park values (section 7.1)
- Northern Grampians and Pyrenees Shire Councils regarding administration of the planning schemes, including input into adjacent or nearby developments that may impact on the park and the promotion of responsible pet ownership (section 7.4)
- State and regional tourism authorities to promote the park in regional visitor information centres and in regional tourism strategies (section 6.1)
- Commonwealth Department of Sustainability, Environment, Water, Populations and Communities on the management of regional ecosystem conservation issues.
9 PLAN IMPLEMENTATION

9.1 Delivery and reporting

A range of approaches will be used to implement strategies in this plan. Some will be undertaken as part of routine management activities such as ranger visits; others will be addressed as part of regional programs undertaken across the State each year.

A priority list of all the strategies in the plan will be used to guide routine management, and identify detailed actions in annual regional programs. Management actions are planned each year in response to available resources and outstanding actions and priorities may change, often due to emerging issues.

Each year, progress towards implementing the plan will be reviewed in order to inform the following year’s program. Staff report internally against ‘on time and within budget’ delivery of regional programs and whether the completed strategy has achieved the objective.

Parks Victoria reports annually to government on the overall delivery of regional and divisional programs. This broader reporting on management performance is available in annual reports prepared on the National Parks Act and Parks Victoria.

Many aspects of implementation will involve collaboration with a range of individuals, groups and agencies. Traditional Owners in particular will have considerable involvement in implementation.

Implementation of the plan will be consistent with Parks Victoria’s commitment to sustainable practices, which involves the delivery of operations, services and facilities in an ecologically and socially responsible manner with minimal use of expendable resources and minimal generation of waste. The threat of accelerated climate change on the park’s ecosystems and wildlife is of increasing concern. As part of its Healthy Parks Healthy People initiative, Parks Victoria is changing practices to reduce greenhouse emissions and its environmental footprint.

In implementing the plan, management will respond to monitoring and research information as it emerges. Parks Victoria’s environmental management framework makes this possible. Based on the International Standard for Environmental Management Systems (ISO 14001), the framework ensures that the future condition of values is considered in identifying threats and developing actions to ameliorate them. Over time, the success of actions is reviewed against set objectives to ensure ongoing learning and refinement of management. The selection of actions and treatments of threats are guided by the precautionary principle. Management options are evaluated on the basis of least impact on the environment. Treatment of threats with a potential for serious damage that is not addressed in the plan will not be postponed for lack of information.

Parks Victoria will use a variety of means to report to the community about the progress of implementation of the plan. The primary means will be through routine liaison with interested groups and individuals and relevant government agencies. In addition to giving regular updates, there will be opportunities for input by interested members of the community into annual priority setting and feedback on management performance. Events such as park open days and community and volunteer forums will offer similar opportunities for reporting and discussions about annual programs.

The results of monitoring and research work will continue to be available to the community as technical reports available on Parks Victoria’s website, www.parkweb.vic.gov.au.

Parks Victoria will also report on evaluation of the plan (section 9.3) at the start of the new or revised plan, through routine liaison and community forums and in the subsequent draft plan.

Future State of the Parks reports will be available on the Parks Victoria’s website www.parkweb.vic.gov.au. This will also include information on management performance in the park.

9.2 Plan amendment

During the 10-year life of the plan, amendments to the plan may only be made by the Secretary to DEPI, following an authorised
process which includes community consultation, as appropriate.

Circumstances that might lead to amendment of the plan include:

- the results of monitoring or research, management experience or new information (such as greater understanding of new threatening processes) which indicate the need for a change in management direction
- significant changes in visitation or use
- a change in policy that calls into question plan objectives
- new legislation (such as significant boundary changes).

The plan may also be amended if an activity, development or use which conflicts with the provisions of the plan is approved by government (such as native title outcomes).

9.3 Evaluation and review

Periodically through the life of the plan Parks Victoria will assess overall progress towards implementing the strategies in the plan and also assess progress towards achieving the plan vision and directions. These evaluations will inform a decision about whether a new or revised plan is required. The achievements of the plan will be assessed by considering performance areas such as:

- Progress towards working with the Tradition Owners in managing the park.

Protecting natural values

- Overall progress towards achieving environmental conservation objectives including:
  - maintaining the near natural age class distribution, structure and floristic diversity that exists throughout most of the park
  - protecting populations of threatened flora and fauna species
  - maintaining the quality and availability of fauna refuges, large old trees and woody debris on the ground.
  - Meeting planned burning targets.
  - Meeting community expectations as a good environmental manager.
  - Minimal impact of permitted uses.
  - Compliance with park regulations.

Protecting cultural values

- Involvement of the relevant Registered Aboriginal Party in protecting and interpreting Aboriginal cultural heritage.
- Timely management intervention to minimise damaging activities and threats.
- Meeting community expectations as a good manager of historic places.

Managing recreation and visitor use

- Maintaining the levels of information and interpretation (section 6.1).
- Meeting and maintaining the levels of service for facilities (table 4).
- All facilities meet public safety standards and the majority of facilities with more than five years’ life expectancy.
- Meeting agreed road and track standards (table 3).
- All 2WD roads in at least fair to good condition.
- Minimal impact from visitors, including individuals and school and tour groups.
- Maintaining visitor use levels.
- Maintaining visitor satisfaction with adequacy of recreational opportunities.
- Meeting community expectations in relation to Parks Victoria’s management of the park.
- Improving community and visitor awareness.

Providing for research and promoting understanding

- Progress towards reflecting Indigenous views in the park’s planning and management.
- Improving understanding of the key threats in particular the impact of kangaroo grazing on park values.
- Ongoing Indigenous and broader community participation.
- Ongoing agency partnerships.
Methods for evaluating the benefits of the plan are likely to be refined over time. Parks Victoria has introduced a range of structured monitoring practices to collect standardised and scientifically-robust information. In particular, these will improve understanding of the outcomes of management on natural values; and allow improved reporting and assessment of performance. Parks Victoria also partners with external research agencies to enhance knowledge and understanding of the values and features of the park and inform management decisions particularly in relation to pest and fire management. By using sound monitoring and assessment methods this monitoring and research work will strengthen the basis for comparing management performance over time.
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Personal communication

B. Small, Tottington, St Arnaud.

D. Lanyon, Forest Officer, St Arnaud.
GLOSSARY

Aboriginal cultural heritage – Aboriginal places, objects and Aboriginal human remains.

Biodiversity – the natural diversity of all life: the sum of all our native species of flora and fauna, the genetic variation within them, their habitats and the ecosystems of which they are an integral part.

Bioregion – an area with unique underlying environmental and ecological features.

Box Ironbark Forest EVC – the ecological vegetation class (EVC) that consists of a variety of eucalypts but predominantly box and ironbark species.

Box Ironbark Forest and Woodlands – the combination of ecological vegetation communities (EVCs) that cover the temperate woodland areas of south-eastern Australia investigated by the Environment Conservation Council (ECC 2001).

Catchment – the area of land that drains to a watercourse or estuary.

Committee of Management – a committee appointed under the Crown Land (Reserves) Act 1978 to manage reserved Crown land on behalf of the Minister. For coastal land, committees are either an agency (e.g. the local municipality, Parks Victoria or the Department of Sustainability and Environment) or a committee appointed through an expression of interest process.

Country – all of nature, culture and spirituality relating to an area.

Crown land – land belonging to the State.

Customs – observances and practices of people (includes land management and resource use) in accordance with tradition.

Defined campsite – a camping area usually defined by bollards, fencing or natural barriers.

Designated camping – camping in an area set aside as a campground. This may be vehicle based or walk-in and generally has some facilities.

Dispersed camping – camping in an area set aside for camping usually in existing cleared sites. This is generally walk-in camping with no facilities.

Ecological values – the importance of natural assets in maintaining natural ecosystems and ecological processes, of which it is a part.

Ecologically sustainable development – development that improves the total quality of life both now and in the future, in a way that maintains the ecological processes on which life depends.

Ecologically sustainable use – the use of a species or ecosystem at a level that enables it to recover naturally.

Ecosystem – a dynamic complex of interacting organisms and their associated non-living environment.

Fire management – all activities associated with the management of fire prone public land values, including the use of fire, to meet land management objectives.

Freehold land – land held in private ownership.

Geomorphology – the scientific study of landforms and geological formations and the processes that shape them.

Heritage – a place, activity, cultural way of life, structure or group of structures that has aesthetic, historic, scientific or social value for the past, present or future generations.

Indigenous communities – Indigenous people who share cultural values and activities relating to the park.

Indigenous people – people who are descendants of Aboriginal Australians and Torres Strait Islanders.

Infrastructure – physical structures that facilitate the human use of an area (e.g. roads, paths, toilet blocks).

Large old tree – a tree of 60 cm diameter or greater at breast height (Soderquist & Rowley (1995).

Levels of Service Framework – a strategic framework for visitor services and asset management that is used to support resource allocation decision-making to best provide appropriate recreational infrastructure in a consistent manner.

Matters of National Environmental Significance – defined by the Environment Protection and Biodiversity Conservation Act to include: World Heritage Properties; Ramsar wetlands; nationally threatened species and communities; migratory species protected under international agreements; the Commonwealth marine environment; and, nuclear actions.

Nature-based tourism – tourism that provides a range of experiences that rely on attractions directly related to the natural environment.

Pest – a plant, animal or pathogen that, if introduced outside its natural or previous distribution, causes significant changes to habitats.
food chains, ecosystems or human health by feeding on or competing with native species. Can refer to either terrestrial or marine species.

**Prospecting** – the search for minerals (including gemstones) under a Miner’s Right or Tourist Fossicking Authority.

**Powerful owl management area** – a 500 hectare contiguous patch of forest consisting mainly of habitat appropriate for the Powerful Owl.

**Registered Aboriginal Party** – a body registered under part 10 of the Aboriginal Heritage Act by the Aboriginal Heritage Council.

**Rock well** – a hole in a rock surface that holds water for periods of time and was used by Aboriginal people for obtaining water.

**Sediment** – insoluble material suspended in water, consisting mainly of particles derived from rock, soil and organic material.

**Stakeholders** – those people and organisations who may affect, be affected by, or perceive themselves to be affected by, a decision or activity.

**Stormwater** – runoff from land during and following rain. Stormwater removes accumulated material including litter, soil, nutrients, pathogens, chemicals, pesticides, oils and grease.

**Threatening processes** – a source of potential harm or a situation with a potential to cause loss.

**Tradition** – the body of knowledge, belief and customs that is passed from generation to generation.

**Traditional Owners** – person/s with traditional or familial links, an Aboriginal person/s with particular knowledge about traditions, observances, customs or beliefs associated with the area, and the person/s has responsibility under Aboriginal tradition for significant Aboriginal places located in, or significant aboriginal objects originating from, the area; or is a member of a family or clan group that is recognised as having responsibility under Aboriginal tradition for significant Aboriginal places located in or significant Aboriginal objects originating from, the area.

**Values** – natural and cultural assets (e.g. historic artefacts, features, landscapes, flora and fauna species, flora communities) that have been given worth or are considered to be desirable.

**Acronyms**

**AAV** – Aboriginal Affairs Victoria.

**ABC** – Action for Biodiversity Conservation.

**ANZECC** – former Australian and New Zealand Environment and Conservation Council.

**CALP Act** – Catchment and Land Protection Act.

**CFA** – Country Fire Authority

**CMA** – Catchment Management Authority.

**DEPI** – Department of Environment and Primary Industries.

**DPCD** – Department of Planning and Community Development.

**DPI** – Department of Primary Industries.

**DSE** – former Department of Sustainability and Environment.

**ECC** – former Environment Conservation Council.

**EPA** – Environment Protection Authority (Victoria).

**EPBC Act** – Environmental Protection and Biodiversity Conservation Act.

**EVC** – Ecological Vegetation Class.

**FCVV** – Federation of Victorian Walking Clubs.


**HV** – Heritage Victoria.

**IUCN** – World Conservation Union.

**LTO** – Licensed Tour Operator.

**MVO** – Management Vehicles Only.

**NRE** – former Department of Natural Resources and Environment.

**NCCMA** – North Central Catchment Management Authority.

**NCR** – Nature Conservation Reserve.

**PMAV** – Prospectors and Miners Association of Victoria.

**PV** – Parks Victoria.

**SWSCA** – Special Water Supply Catchment Area.

**WCMA** – Wimmera Catchment Management Authority.
APPENDIX 1 MANAGEMENT OBJECTIVES FOR NATIONAL PARKS


4. Objects of the Act

The objects of this Act are —

(a) to make provision, in respect of national parks ...

(i) for the preservation and protection of the natural environment including wilderness areas and remote and natural areas in those parks;

(ii) for the protection and preservation of indigenous flora and fauna and features of scenic or archaeological, ecological, geological, historic or other scientific interest in those parks;

(iii) for the study of ecology, geology, botany, zoology and other sciences relating to the conservation of the natural environment in those parks; and

(iv) for the responsible management of the land in those parks;

(aa) to make further provision in respect of designated water supply catchment areas in national parks—

(i) for the protection of those areas; and

(ii) for the maintenance of the water quality and otherwise for the protection of the water resources in those areas; and

(iii) for the restriction of human activity in those areas for the purposes of sub-paragraphs (i) and (ii);

(c) to make provision in accordance with the foregoing for the use of parks by the public for the purposes of enjoyment, recreation or education and for the encouragement and control of that use.

Under Section 17(2) the Secretary shall, subject to the Act—

(a) ensure that each national park ... is controlled and managed, in accordance with the objects of this Act, in a manner that will—

(i) preserve and protect the park in its natural condition for the use, enjoyment and education of the public;

(ii) preserve and protect indigenous flora and fauna in the park;

(iii) exterminate or control exotic fauna in the park;

(iv) eradicate or control exotic flora in the park; and

(v) preserve and protect wilderness areas in the park and features in the park of scenic, archaeological, ecological, geological, historic or other scientific interest;

(aa) have regard to all classes of management actions that may be implemented for the purposes of maintaining and improving the ecological function of the park;

(b) ensure that appropriate and sufficient measures are taken to protect each national park and State park from injury by fire;

(ba) ensure that appropriate and sufficient measures are taken:

(i) to protect designated water supply catchment areas; and

(ii) to maintain water quality of and otherwise protect the water resources in those areas; and

(iii) to restrict human activity in those areas for the purposes of sub-paragraphs (i) and (ii);

(c) promote and encourage the use and enjoyment of national parks and State parks by the public and the understanding and recognition of the purpose and significance of national parks and State parks; and

(d) prepare a plan of management in respect of each national park and State park.
## APPENDIX 2 SUBMISSIONS ON THE DRAFT MANAGEMENT PLAN

A total of 26 submissions were received on the Draft Management Plan (April –June 2009), from the following organisations and individuals.

<table>
<thead>
<tr>
<th>ORGANISATION</th>
<th>SUBMISSION NO.</th>
<th>NAME</th>
<th>SUBMISSION NO.</th>
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<tr>
<td>Submissions from groups</td>
<td></td>
<td>Total: 17</td>
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<tr>
<td>Australian Rare Fauna Research Association</td>
<td>4</td>
<td>Ray Hewitt</td>
<td>1</td>
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<tr>
<td>Bendigo 4WD Club</td>
<td>8</td>
<td>Rodney and Jenny Medlyn</td>
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<tr>
<td>Bird Observation and Conservation Australia</td>
<td>24</td>
<td>Ian Bissett</td>
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<td>Bushwalking Victoria</td>
<td>21</td>
<td>John Kelly</td>
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<tr>
<td>Department of Sustainability and Environment – Biodiversity Group</td>
<td>19</td>
<td>Peter Maffey</td>
<td>10</td>
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<tr>
<td>Department of Sustainability and Environment – Fire Management</td>
<td>26</td>
<td>Daryl Driscoll</td>
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<tr>
<td>Four Wheel Drive Victoria</td>
<td>18</td>
<td>Haviva Perkal and Chris Scott</td>
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<td>Gells Honey</td>
<td>7</td>
<td>Craig Cheesman</td>
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<td>National Parks Advisory Committee</td>
<td>2</td>
<td>Marion Minty</td>
<td>23</td>
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<td>North Central Catchment Management Authority</td>
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<td>Northern Grampians Shire</td>
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<td>St Arnaud Field Naturalists Club Inc</td>
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<td>Stuart Mill Progress Association</td>
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<td>V.A.A. Inc. Resources Committee</td>
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<td>Victorian Seekers Club Inc</td>
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</table>
# Appendix 3 Ecological Vegetation Classes

<table>
<thead>
<tr>
<th>EVC Location and Description</th>
<th>Bioregion Status</th>
<th>% EVC in Park</th>
<th>Condition of EVC in Park*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heathy Dry Forest</strong></td>
<td>Least concern</td>
<td>42%</td>
<td>Good</td>
</tr>
<tr>
<td>On ridge tops and upper slopes, particularly northern slopes within the park on shallow stony soils. The overstorey is dominated by Red Stringybark (<em>Eucalyptus machrorhyncha</em>) and Red Box (<em>E. polyanthemos</em>) and Long-leaf Box or Bundy (<em>E. goniocalyx</em>) often present as a codominant species (Muir et al. 1995, Parks Victoria 2005b). Understorey shrubs include Slender Rice-flower, Gorse Bitter-pea and Daphne Heath and the ground layer is dominated by Silvertop Wallaby Grass and Grey Tussock-grass (Muir et. al. 1995).</td>
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<tr>
<td><strong>Box Ironbark Forest</strong></td>
<td>Depleted</td>
<td>25%</td>
<td>Moderate</td>
</tr>
<tr>
<td>Generally found down slope of Heathy Dry Forest and Grassy Dry Forest on gently undulating rises and low hills. These areas are mostly in the northern and north-eastern areas of the park. The overstorey is dominated by Red Box and Grey Box (<em>E. microcarpa</em>). Red Ironbark (<em>E. tricarpa</em>), Yellow Gum (<em>E. leucoxylon</em>) and Red Stringybark are also present as overstorey species (Muir et. al. 1995). The understorey is comprised of dense shrubs including Slender Rice-flower, Silky Bush-pea, Narrow-leaf Bitter-pea, Hairy Bursaria and Hedge Wattle. Small Matt-rush is a common ground layer species (Muir et. al. 1995).</td>
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<td></td>
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<tr>
<td><strong>Grassy Dry Forest</strong></td>
<td>Depleted</td>
<td>24%</td>
<td>Good</td>
</tr>
<tr>
<td>On ridge tops and upper hill slopes and usually on a north-east to south-easterly aspect on shallow and stony soils with low fertility and poor water holding capacity. The overstorey is comprised of Red Stringybark, Yellow Box (<em>E. melliodora</em>), Red Box and Long-leaf Box/Bundy (Muir et. al. 1995). The herb layer is the distinctive feature of this EVC, characterised by Grey Tussock-grass, Stinking Pennywort, Cotton Fireweed, Small St John’s Wort, Magenta Storks-bill, Austral Cranesbill Green Rock Fern and Common Woodrush (Muir et. al. 1995).</td>
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<tr>
<td><strong>Valley Grassy Forest</strong></td>
<td>Vulnerable</td>
<td>3%</td>
<td>Good</td>
</tr>
<tr>
<td>Valley Grassy Forest is similar to Grassy Dry Forest, however located lower in the valley with slightly better soils and water availability. The largest area of Valley Grassy Forest in the park is within the upper Strathfillan catchment above Upper Teddington Reservoir. A unique feature of Grassy Dry Forest and Valley Grassy Forest in the park is the presence of Eurabbie (<em>E. globulus</em> ssp. <em>bicostata</em>) (Parks Victoria 2005b).</td>
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<tr>
<td><strong>Low Rises Grassy Woodland</strong></td>
<td>Endangered</td>
<td>1%</td>
<td>Good</td>
</tr>
<tr>
<td><strong>Creekline Grassy Woodland</strong></td>
<td>Endangered</td>
<td>&lt;1 %</td>
<td>Good</td>
</tr>
<tr>
<td><strong>Low Rises Grassy Woodland / Alluvial Terraces Herb-rich Woodland Mosaic</strong></td>
<td>Endangered</td>
<td>3%</td>
<td>Good</td>
</tr>
<tr>
<td>In the creekline and valley areas of Low Rises Grassy Woodland, Creekline Grassy Woodland and Low Rises Grassy Woodland/Alluvial Terraces Herb-rich Woodland mosaic, the overstorey species include Yellow Box, Grey Box, Yellow Gum, River Red Gum (<em>E. camaldulensis</em>), Bundy/Long-leaf Box and Red Stringybark. Common understorey herb and grass species are detailed in Muir et. al. (1995).</td>
<td></td>
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</tr>
<tr>
<td><strong>Heathy Woodland</strong></td>
<td>Vulnerable</td>
<td>&lt;1%</td>
<td>Not assessed</td>
</tr>
<tr>
<td><strong>Hillcrest Herb-rich Woodland</strong></td>
<td>Depleted</td>
<td>&lt;1%</td>
<td>Not assessed</td>
</tr>
</tbody>
</table>


* Average condition of EVC within the park was determined following vegetation quality assessments using the Habitat Hectares approach (Parkes, Newell & Cheal 2005).
## APPENDIX 4 RARE AND THREATENED FLORA

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Conservation Status</th>
<th>Australia</th>
<th>Victoria</th>
<th>FFG Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocasuarina luehmannii</td>
<td>Buloke</td>
<td></td>
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<td>L</td>
</tr>
<tr>
<td><em>Amyema linophylla</em> subsp. <em>orientale</em></td>
<td>Buloke Mistletoe</td>
<td></td>
<td></td>
<td>v</td>
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</tr>
<tr>
<td>Glycine latrobeana</td>
<td>Clover Glycine</td>
<td></td>
<td></td>
<td>V</td>
<td>v</td>
</tr>
<tr>
<td>Grevillea dryophylla</td>
<td>Goldfields Grevillea</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Leucopogon virgatus var. <em>brevifolius</em></td>
<td>Common Beard-heath</td>
<td></td>
<td></td>
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<td>r</td>
</tr>
<tr>
<td>Olearia tubuliflora</td>
<td>Rayless Daisy-bush</td>
<td></td>
<td></td>
<td></td>
<td>r</td>
</tr>
<tr>
<td>Prasophyllum lindleyanum</td>
<td>Green Leek-orchid</td>
<td></td>
<td></td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>Prostantherasaxicola var. <em>bracteolata</em></td>
<td>Slender Mint-bush</td>
<td></td>
<td></td>
<td></td>
<td>r</td>
</tr>
<tr>
<td>Pterostylis despectans</td>
<td>Lowly Greenhood</td>
<td></td>
<td>E</td>
<td>e</td>
<td>L / A123</td>
</tr>
<tr>
<td>Stylidium calcaratum var. <em>ecorne</em></td>
<td>Book Triggerplant</td>
<td></td>
<td></td>
<td>k</td>
<td></td>
</tr>
</tbody>
</table>

Sources: DSE (2005), DSE (2006a)

Key

Conservation status

Australia (EPBC Act)

- **E** endangered
- **V** vulnerable

Victoria (DSE 2005)

- **e** endangered
- **v** vulnerable
- **r** rare
- **k** species poorly known in Victoria — suspected of being one of the above Victorian categories

FFG Act

- **L** listed under the Flora and Fauna Guarantee Act
- **A** FFG Action Statement and number
APPENDIX 5  RARE AND THREATENED FAUNA

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
<th>CONSERVATION STATUS</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>AUSTRALIA</td>
</tr>
<tr>
<td><strong>MAMMALS</strong></td>
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<tr>
<td>Petaurus norfolcensis</td>
<td>Squirrel Glider</td>
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<tr>
<td>Phascogaletapatafa</td>
<td>Brush-tailed Phascogale</td>
<td>vu</td>
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<tr>
<td><strong>BIRDS</strong></td>
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</tr>
<tr>
<td>Anas rhynchothis</td>
<td>Australasian Shoveler</td>
<td>vu</td>
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<tr>
<td>Anas australis</td>
<td>Hardhead</td>
<td>vu</td>
</tr>
<tr>
<td>Biziura lobata</td>
<td>Musk Duck</td>
<td>vu</td>
</tr>
<tr>
<td>Chthonicola sagittata</td>
<td>Speckled Warbler</td>
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<tr>
<td>Circus assimilus</td>
<td>Spotted Harrier</td>
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</tr>
<tr>
<td>Climacteris picumnus</td>
<td>Brown Treecrepper</td>
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</tr>
<tr>
<td>Coturnix ypsilophora</td>
<td>Brown Quail</td>
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</tr>
<tr>
<td>Geopelia cuneata</td>
<td>Diamond Dove</td>
<td>nt</td>
</tr>
<tr>
<td>Lathamus discolor</td>
<td>Swift Parrot</td>
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<tr>
<td>Lophoictinia isura</td>
<td>Square-tailed Kite</td>
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<td>Melanodryas cucullata</td>
<td>Hooded Robin</td>
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<tr>
<td>Melithreptus gularis</td>
<td>Black-chinned Honeyeater</td>
<td>nt</td>
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<tr>
<td>Ninox connivens</td>
<td>Barking Owl</td>
<td>en</td>
</tr>
<tr>
<td>Ninox strenua</td>
<td>Powerful Owl</td>
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<tr>
<td>Oreoica gutturalis</td>
<td>Crested Bellbird</td>
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<tr>
<td>Oxyura australis</td>
<td>Blue-billed Duck</td>
<td>en</td>
</tr>
<tr>
<td>Stagonopleura guttata</td>
<td>Diamond Firetail</td>
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<tr>
<td><strong>MEMBER OF THE FFG LISTED VICTORIAN TEMPERATE-WOODLAND BIRD COMMUNITY</strong></td>
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<tr>
<td>Glossopsitta pusilla</td>
<td>Little Lorikeet</td>
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<tr>
<td>Lichenostomus fuscus</td>
<td>Fuscous Honeyeater</td>
<td>LC</td>
</tr>
<tr>
<td>Lichenostomus melanops</td>
<td>Yellow-tufted Honeyeater</td>
<td>LC</td>
</tr>
<tr>
<td>Melithreptus brevirostris pallidiceps</td>
<td>Brown-headed Honeyeater</td>
<td>LC</td>
</tr>
<tr>
<td>Microeca fascinans</td>
<td>Jacky Winter</td>
<td>LC</td>
</tr>
<tr>
<td>Turnix veria</td>
<td>Painted Button-quail</td>
<td>LC</td>
</tr>
<tr>
<td><strong>AMPHIBIANS</strong></td>
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<tr>
<td>Pseudophryne bibronii</td>
<td>Bibron’s Toadlet</td>
<td>en</td>
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<td><strong>REPTILES</strong></td>
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</tr>
<tr>
<td>Varanus varius</td>
<td>Tree Goanna/Lace Monitor</td>
<td>vu</td>
</tr>
</tbody>
</table>


Conservation status:
- EN: endangered in Australia (EPBC Act)
- en: endangered in Victoria (DSE 2005)
- L: listed under FFG Act
- LC: lower risk or near threatened in Victoria (DSE 2005)
- associated with FFG-listed Victorian Temperate-Woodland Bird Community
Figure 1 REGIONAL LOCALITY PLAN
KARA KARA NATIONAL PARK